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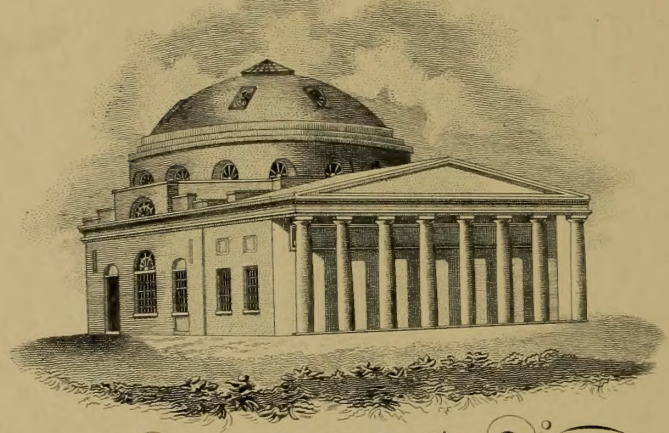

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(CORRECTED TABLE OF CONTENTS)

UNIVERSITY OF MARYLAND

THESES

1865 (a)

Author	Title	Notes
Holsonbaker, A.	Dysentery Colitis	
Yourtee, J. Tilghman	Intermittent Fever	
Taneyhill, G. Lane	Gun Shot Fractures of Femurs	
Stewart, Reverdy B.	Dysentery	
Groves, Benjamin B.	Intermittent Fever	
Kugler, Joseph	Typho-Malarial Fever	
White, Caleb B.	Pneumonia	
Williams, Denard S.	Diphtheria	
Burch, Dennis C.	Typhoid Fever	
Balch, Stephen F.	Labor	(No title page)
Coskery, Oscar J.	Pyaemia	
Robinson, George L.	Diphtheria	
Cruikshank, Harrison	Vis Medicatrix Naturae	(No title page)
Barber, Thomas K.	Intermittent Fever	
Bouldin, Robert W. R.	Phthisis Pulmonalis	
Free, Adam C.	Placenta Praevia[1]	
Thompson, James F.	Sulphate of Quinine	

[1] Stained. Title page faded.

HSHSL 2012 for the UM Digital Archive. Sources consulted for corrections: Original Dissertation; University of Maryland Medical Faculty, Matriculation List, 1821-1851; Cordell, Eugene F. "University of Maryland, 1807-1907" (New York : The Lewis Publishing Company, 1907), Volume 2.

Author	Title	Notes
Jones, Henry Z.	Diarrhoea	

UNIVERSITY OF MARYLAND

THESES

1865 (a)

Holsonbaker, A.	Dysentery Colitis	11p.
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Baltimore, Md.

A. Holsonbake, M.D.

January 15th

1863.

5

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= Dysentery Colitis =

Dysentery is an inflammation of the mucus coat or membrane of the Colon, which almost invariably extends to the rectum, when the case is the least severe, This disease may be divided into several kinds, or complications which are one, and the same disease, and only named from the complication, Also into the acute and chronic stages, It is complicated with the following diseases (viz) Bilious when complicated with disease or disorder of the liver, Intermittent when complicated with that type of fever. Remittent when associated with the remittent type of fever, Also Typhoid or Typhous when accompanies with those fevers, And Epidemic when it prevails over the County generally, And endemic when it is confined to any particular locality. This disease in its uncomplicated form is

Characterized by slight griping pains or tormina even before going to stool, and slightly relieved by the discharges, which are not very frequent, not more than four or five per day, Consisting only of mucus with some tenesmus, skin natural or nearly so, pulse rather accelerated, with but little or no fever, Tongue somewhat unnatural or very slightly Coated, some headache, and uneasiness in the back, and legs, Urine natural or nearly so. Then we have a more severe form, which is Characterized by severe griping pain or tormina, more severe before going to stool, which is not relieved by the discharges, which efforts to stool are very frequent amounting as I have seen from twenty to sixty and even more in twenty four hours, accompanied by severe tenesmus. This disease may merge from

Diarrhoea, and at the commencement the discharges may be feculent, but afterwards they become small, and consist only of blood and mucus, and sometimes almost entirely blood, with great tenesmus, severe headache, high inflamday fever, severe pains in the back generally, but not always, and an uneasiness in the lower extremities, white coated tongue, sometimes nausea, and flushes of heat and cold or rigors, great thirst, retention of urine with frequent efforts to urinate, tenderness over the entire abdomen, and at stools large shreds of fleshy muscles or false membrane are discharged from the bowels, sometimes but very rarely according to my observation discharges of hardened lumps of feces called scybala. The uncomplicated case as above described, under good treatment will generally yield, and convalescence later places in from two to seven days

When called bilious dysentery we have in addition to the symptoms before mentioned pain in the right hypochondriacal region extending to the epigastrium, with slight yellowness of the skin Tongue, and conjuctiva, supervening or we may have it from the first; with hot and dry skin, scanty and high colored urine, strong and full pulse some nausia and vomiting.

And in the Intermittent form of dysentery we may have the dysentery supervening, or we may have the Intermittent supervening on the dysentery, in the Quotidian, Tertian or Quartan type, but most frequently as I have seen in the Quotidian type. As Intermittent so in Remittent we may have the fever supervening on the dysentery or the dysentery supervening on the Remittent fever, But according to my own experience I might say almost invariably the fever

supervening on the local inflammation.
Characterized by continued fever with remissions
of the fever every day, or every other day, more
frequent in my own practice every day, which
is appreciated by cold chilly feelings along the
course of the Spinal Column, and cold nose
and fingers, which lasts but a few minutes
followed by increase of fever. And we may
have also a Typhoid form of dysentery, or
I might say the Typhoid state in dysentery,
as I have seen it, and which is appreciated
by the following symptoms. The patient
becomes delirious at times, which is low, and
muttering, pulse frequent and feble rising
from seventy to one hundred and twenty and
even more in a minute. Tongue becomes
dry and cracked, and sometimes red at the
tip and edges, and sometimes parts with its
coat quickly, sometimes in the middle and then on side only

and looks red and glassy. The patient has a tendency to slip down towards the foot of the bed, Sordes on the teeth, and lips. And again we may have dysentery supervening on Typhoid fever, which comes on generally in the latter stages of that fever. Now chronic dysentery comes on after the Acute form from neglect of the acute disease, and bad treatment, or it may arise without being preceded by the acute, but generally according to my experience it is the second of the disease and characterized by all the symptoms of the former, but in a milder form, and very easily accompanied by fever.

Treatment. In the mild form of the disease it is very easy Cured, I give one ounce of Castor oil, and if this does not operate freely in eight or ten hours, I repeat it until it does operate, and if this does not arrest the disease,

I give twenty or thirty drops of Tincture of Opium, or what is better a forth of a grain of Sulphate of Morphia. In the more severe form of uncomplicated dysentery, with high fever I have succeeded in arresting the disease in a few days by this Recipe aided by Sulphate of Morphia, and the Nitrous powders. (Viz) R. Sulphate of Magnesia sixty grains, Dover's powder thirty grains, mix and divide in three powders, and give one in sweetened water every four hours till they operate pretty freely. Then I generally give Nitrous powders to bring on diaphoresis, and abate the fever, and give Sulphate Morphia grains one third, with two grs of dovers powder combined three or four times a day according to circumstances, with hot fomentations to the abdomen, and Starch and Laudanum by the rectum if necessary. The above treatment is for the adult patient

used modified of course in children, and
the disease as it appears in the adult is
what I am treating on ~~now~~ I have never
bled a patient in this disease as yet, but if
I were to see a case that in my judgement
required bloodletting, I should not hesitate
to draw blood generally and locally.
My treatment in the bilious form of this disease
as I have described it I generally commence
the Treatment by an emetico Cathartic as follows
Calomel gro ten Ipecac gro ten mist and
give in syrup, and if it does not produce
emesis and Cathersis I repeat in six or eight
hours till it does operate freely. And then
I give the nitrous powders especially as I think
the Antimony has a good effect on the liver,
also I combine Ipecac with the nitrous powders,
and give Dovers powders, and sulphate of Morphia
at bedtime. And in the complications with

Intermittent fever I treat the case as I do in the uncomplicated form only I give Sulphate Quinia in the intermissions, in large doses say from five to ten grains every two or three hours. And again in the complication with Remittent fever. I treat this as the more severe cases combining with the above treatment full doses of Quinine say ten grains every three or four hours, or three times a day without respect to remissions, after the irritability of the Stomach has been allaid by some of the antiemetics as Aqua Calcis or Creasote mixture And sometimes I have given in the latter stages after diarrhea has taken place, and the fever arrested, R. Aqua Calcis ounces one, Tinct Calumbæ half an ounce, Tincture of Opium one drachm mix Teaspoonfull three or four times a day pro re nata. My Treatment in the Typhoid State as that is the complication in which I have mostly met it.

Notwithstanding I have seen cases which were Typhoid from the commencement, but that is mostly when it prevails epidemic, Now when the Typhoid symptoms appear as I have discribed. I commence with the turpentine emulsion Compounded as follows: Castor oil one ounce, spts turpentine half an ounce, saccharum Alba one ounce, Bicarbonate soda one ounce, Compound spts Lavender one ounce, Pulverized Gum Arabic one ounce, Aqua Camphor sufficient to make an eight ounce emulsion, and give one or two teaspoonfull every two or three hours. Also give five or six grains of Chlorate of Potassa three or four times a day, and give acetate of lead injections in cold water, and sometimes a weak solution of chlorinated soda injections. at the same time giving the patient Brandy, and nourishing diet such as beef essence, and beef tea, and when

he has nights sweats give Elixir of vitriol
In the Chronic form of dysentery. I regulate
the patients diet which is the main point in
treatment, apply Counter irritation and give
the following Recipe. Sulphate Copper grs 6,
Opium grs 4, Extract of gentian grs 20,
mix fiat pilule No 12, one three times a day will
generally arrest the disease.

In now gentlemen a few more words
and I have done, being sensible of the
many imperfections of this Essay I submit it to
the worthy, and intelligent medical faculty
of the University of Maryland, hoping
your generosity will do me the honor of
pardoning all those imperfections.

I am

Very Respectfully

Your Obedient Servant

A. Holsonbake, M. D.

Baltimore Md.
January 15th
1865

1865

Intermittent Fever. This disease is characterized by a train of febrile paroxysms recurring at what might be stated regular periods; alternating with this phenomena is an almost, or quite perfect intermission, or leisure in, from the beginning of one paroxysm to the next is called the interval; and to this the particular type of the fever is referred, these types have been denominated, Quotidian, tertian, quartan &c according to the length of the interval, the quotidian has an interval of twenty four hours; the tertian forty eight, and the quartan Seventy-two. Numerous diversions are often met with in the regular types last mentioned. In the quotidian or

may have two paroxysms in twenty-four hours making it double quotidian, There is double and triple tertian. In the former there is a daily paroxysm, but it occurs at different times, or assumes different characters on alternate days. Thus on the first and third days the paroxysm occurs in the morning; while on the second and fourth days they come on in the afternoon. The latter, triple tertian, has two paroxysms on one day, and on the other but one. The double quartan has a mild paroxysm on the day following the regular paroxysm. Various other types have been mentioned by Authors, but very briefly consequently not deserving notice in this brief essay on the subject.

symptoms. This disease very rarely manifests itself as regularly formed ague in the commencement; usually for a longer or shorter period, the patient complains of the general phenomena of fever, such as pain in the head, back and limbs; loss of appetite furred tounge; and a general feeling of malaise, as before stated after the above symptoms have continued for an indefinite period the Cold Stage or chill commences. This is characterized by a feeling of chilliness along the spine; a continued disposition to yawn with great restlessness, coldness and numbness of the hands and feet with a blue appearance of the nails; the nose and ears are also, amongst the first

parts in which this sensation is experienced
this feeling gradually extends over the
whole surface of the body. The patient shiv-
ers and trembles; the teeth chatter, shud-
ders rapidly pass through the frame. These
phenomena in connexion with the sensation
of cold, are technically denominated rigors"
and, accordingly the same author. the
surface is not always cold to the touch
sometimes it is abnormally hot- when the
patient experiences the most distressing
sensations of cold. The surface is pale
and contracted with a peculiar rough
appearance denominated "horripilation," caused
by the non-shrinking of the capillary follicles
The tongue is generally cool and moist
even tho' the thirst is urgent.

The breathing is hurried and difficult, with a feeling of constriction in the chest causing deep drawn and frequent sighing. The pulse is small and in some cases quickened; in others slow, irregular and feeble. In some cases there's a short hacking and very annoying cough. The secretions are all diminished except the urine, which is more copious than usual and presents a pale and limpid appearance. The nervous system is more or less deranged, evinced by pain, of a neuralgic character in the back, loins and head. The mind is confused and the patients thoughts are of a wandering nature. The temper is irritable, there is occasionally a dis=

position to stupor, which amounts in some rare instances to stupor and coma, with symptoms of apoplexy. The duration of this stage varies greatly in different cases. Sometimes it lasts but a few minutes while in others it may extend to several hours or more. Prof Wood places the average duration at about one hour. Hot Stage, Pyrexia — After a longer or shorter continuance of the preceding stage; the patient experiences flushes of heat alternating with chilly sensations. This feeling of heat is stated to be rather agreeable than otherwise and is usually first felt about the face and temples. The heat gradually increases in intensity, and extends itself over the whole surface of the body, — All traces of the cold

stare and disappear. The face is flushed, the eyes brilliant and sparkling; the whole surface is reddened and the capillaries distended with blood. The temperature of the body is positively increased; and has been found as high as 105° Fahr," Hodges. The tongue is coated with a brownish fur; the mouth is hot and dry, great disinclination for food, but a strong desire for cold and acidulous drinks. Sometimes there is nausea and vomiting. The secretions are diminished the skin being hot and dry and the urine scanty and high-colored inducing a burning sensation when passed. The headache is almost always severe; particularly in the temporal regions, which feel as if they were distended. The pain is

frequently of a throbbing, or pulsating character The pulse is frequent full and strong There is also pain in the back and limbs though not so frequent as in the preceding stage There is sometimes slight delirium "Convulsions are not uncommon in children at the commencement of the hot stage" (Ford) The average duration of this stage is about eight hours. It terminates in the last, or sweating stage — Sweating Stage, The perspiration generally makes its appearance first upon the forehead & breast, it then gradually extends to other parts until the whole surface is covered with moisture more or less profuse When this takes place, there is a general amelioration of the symptoms The pulse loses

its frequency and hardness, and is said to be remarkably full. The tongue and lips become moist; the thirst previously existing now subsides. The headache gradually abates in severity. The secretory organs now resume their functions; particularly the kidneys; and the urine that is voided deposits a laterituous sediment upon cooling. The bowels are evacuated spontaneously, or readily acted upon by cathartic medicine." (Cyc. Prac. Med. Vol. II. Page)

Under the free flow of perspiration the the paroxysm terminates in a perfect state of convalescence or apyrexia. The duration of a paroxysm varies considerably with the subject. It is generally longest in the quotidian. Sometimes however

it lasts for thirty-six hours in the tertian and sixty in the quartan types; necessarily making these latter longer than is generally the case. I think I might safely state the mean duration of a quotidian at fifteen hours; the tertian at ten; and the quartan at six; any deviation from this may be considered an exception. Authors are at variance as to wether the stages subsequent to the cold are mutually dependent upon each other; that is, wether the chill produces the fever; and the fever the sweating stage. I fully concur in the opinions of Prof. Ward, and shall quote his remarks upon the subject. He says; "this is scarcely probable at least with regard to the two first stages; which bear no proportion

to each other; a protracted and severe chill being frequently followed by less, than a slight one, and the fever sometimes recurring without any preceding chill whatever." The probability is that while the depressive attendant upon the cold stage is naturally followed by some degree of febrile reaction, as a necessary consequence the morbific cause, whatever it may be is capable of producing the hot stage in a direct influence. The paroxysm are liable to numerous irregularities. The cold stage is frequently very slight and not few of its characteristic symptoms are present,— There is often nothing more observable than a blue appearance of the nails: with perhaps coldness

of the tips of the nose and ears; even these symptoms may be wanting, and the paroxysm begins with the hot stage. This form has been styled by Authors, "Febres intermittentes larvatae" (Cyc. Prac. Med. Vol II. P. 205) It is vulgarly denominated dumb Ague to distinguish it from the common form known as shaking Ague. Other deviations from the common form have been spoken of by writers; but in my humble opinion they do not deserve the cognomen of Intermittent fever, consequently I will not notice them in this connexion. Having done now with the paroxysm I will next notice the intermission — Apyrexia. When the paroxysm has ceased the patient is left free from fever.

although he is not entirely free from symptoms of disease, lassitude pain in the back, and loins unpleasant sensations in the head and epigastrium. The tounge remains covered with fur. The patient has a wan and haggard expression these symptoms are most common after the early paroxysms. Sometimes the patient is apparently restored to perfect health. His appetite is good; his digestion unimpaired and his general vigor of frame fully restored. Course, Termination &c. The several types of intermittents are subject to deviations in the time of their occurrence - a paroxysm may occur an hour sooner than its predecessor or it

may be an hour later; and it has been stated that if on one day it occurs earlier than usual, that on the next it will occur that much later, making the interval regular and of the same length. In some cases instead of manifesting this accumulating character each paroxysm comes on an hour earlier than the preceding one, or it may be an hour later, the former is said to be an anticipating; and the latter a retarding intermittent. This cause may change one type into another, for instance a anticipating quotidian may become a tertian; while and anticipating tertian may be changed into a quotidian. The converse of this holds equally true, for a retarding quotidian is converted

into a tertian, and a retarding tertian into a quartan. A remarkable peculiarity of this disease is that the paroxysms seldom, if ever occur at night. It is thought that sleep in some way renders the system capable of resisting the morbific influence thereby causing this exemption. In the vast majority of cases the attack is from 9 O. clock in the morning until 5 in the evening. Fordyce makes the following observation "That an anticipating, retarding paroxysm when it reaches the period of darkness, is usually arrested in its course, or it passes over the night to be resumed in the morning, or evening as the case may be, the change of type—

already alluded to; may be abrupt and this change is most common from the type having the shortest intermission to the next longest. For example a quotidian to a tertian, and a tertian to a quartan, In speaking of the terminations of Intermittents; Prof. Ford says; "That if left to themselves will not in general run on indefinitely" Dr. Eberle in speaking upon the same subject says; Intermittents when suffered to pursue their own course without being controlled or embarrassed by external influences appear to have a natural tendency to terminate spontaneously after a certain number of paroxysms have been passed through"

Authors disagree in regard to the tendency of intermittents to terminate; and also to relapse at the septenary periods. I am however fully convinced that they do observe this law, both from observation and the arguments adduced in its favor. No matter what means are used to check intermittents they are very liable to a recurrence upon a slight exposure to the original cause, and indeed they often recur without any appreciable cause

Subsequent Grade and Complications

Every type of intermittents is subject to prominent modifications in regard to their general character. These modifications have considerable —

practical bearing; consequently deserve particular notice. Intermittent Fever may be sthenic in its nature with a vigorous reaction, full bounding pulse florid appearance of the [illegible] with an apparent increase of the red coloring matter of the blood, it may be asthenic with a feeble reaction, and an unusual depression during the chill; a feeble and frequent pulse; with a dark or purplish hue of the skin, denoting a vitiated condition of the circulating fluid. Between these opposite extremes there may be an almost indefinite number of grades. I will notice a few of the most important and give Dr. Eberle's classification of them "He

says: "Intermittents may be divided into the four following varieties. Viz 1st The inflammatory. 2nd The congestive 3rd The Gastric and fourthly The Malignant" Inflammatory intermittents are of more frequent occurrence during winter and spring than at any other season, According to Ritchie Quotidians are most apt to assume this type The young and those of a plethoric habit are most liable to be attacked by this grade, The chill is unusually strong; the fever is of a violent nature the skin very flushed and intensely hot the pulse full, hard, and bounding The blood when drawn presents the appearance of the buffy coat when

drawn and allowed to stand and coagulate. After the sweating stage has been passed even if it be profuse, the pulse remains quick and tense; and the skin dry and warmer than usual. The nervous system seems to suffer more than usual. There is headache, great irritability of temper, and general inquietude. "The intermission is usually very short" (Richter) Congestive intermittents are very rare. The weak and debilitated are most prone to this variety of the disease. The chill is unusually severe and protracted; followed by a very feeble reaction. There is deep-seated pain in the head. Vertigo, fainting and coma. A small weak pulse cool

instead of hot skin pale contracted countenance oppression in the chest causing difficulty of breathing &c. Gastric variety. In this the stomach and bowels seem to suffer more severely than any other organs, There is a redundancy of bile & frequent vomiting of bilious matter. The tounge is covered with a brown iso fur and the patient complains of a bitter nauseous taste in the mouth. Thirst is urgent and is best relieved by acidulous drinks This variety is more apt than any other to be followed by visceral disorders; such as enlargement of the liver and spleen. It is chiefly

confined to tropical regions. The malignant variety is characterized by the usual phenomena attendant upon a depressed condition of the blood. The chill and fever are both insidious in their nature. The sweating stage however is marked by a copious and fetid perspiration in combination with hæmorrhages from other important organs; petechia are also sometimes observable denoting malignancy. They are of frequent occurrence in hot climates and usually run their course with great rapidity. "Albert" states that death usually takes place in the third paroxysm. Effects. The common variety together with the complications

[illegible] frequently have a very deleterious effect, and it is unnecessary to specify particularly to which variety these several effects belong, for the same effect may be caused by any variety of the disease. If an intermittent subsides spontaneously after a brief course, or is speedily checked by proper therapeutic measures no unpleasant consequences remain except a tendency to return. If however it runs on indefinitely, either from neglect on the part of the patient or practitioner or both, serious and very disagreeable sequelæ remain. The most common of these, is enlargement of the spleen,

Prof Wood is of the opinion that this affection, enlarged spleen, may be brought about by the same cause, miasmatic, that gives rise to Intermittent Fever. I would humbly venture to say that may not those cases of enlarged spleen occurring without any visible manifestation of Intermittent Fever previous to its appearance, be owing to a previous attack of this disease unknown and unnoticed by the patient. — About a year ago a very interesting case of this kind came under my notice, the case being under treatment by my Preceptor Dr. Clagett, A young man aged 17 years complained of the general symptoms of dropsy —

particularly in the lower extremities. Upon a careful examination of the case there was found evident enlargement of the spleen, as a matter of course the inquiry was made if he had been previously affected with intermittent fever? He replied in the negative, "But says he for the last three or four months; sometimes every day, and then only every other day I did not exactly feel well. For about noon I would become rather warmer than natural and in the course of the afternoon I would sweat very profusely." Under proper treatment these symptoms were speedily removed. Here evidently was a case if strict

inquiry had not been made would have been added to the class of apparent enlargement of the spleen without a previous attack of Fever. Enlargement and induration of the Liver is another frequent effect of neglected intermittents. This gives rise to the usual symptoms of functional derangement in this important organ, feeble appetite, furred tongue, the alvine evacuations clay-colored, or otherwise denoting derangement in the biliary secretions, and a general jaundiced appearance. Another effect of this disease is Dropsy. This may generally be known by the usual and marked symptoms. It is readily amenable

to treatment and is frequently permanently cured; owing to this fact it is to be doubted whether the kidneys are organically diseased as has been asserted by some writers. Insanity it has been asserted sometimes follows the cure of this malady, The menstrual flow; and the secretion of milk in women; and habitual hæmorrhoidal discharges in men, it is thought are sometimes suspended by this disease, To counterbalance this long train of evil consequences. Some credit is due to this disease in suspending other maladies or morbid tendencies thereto. Diseases of the nervous system are probably more

remedied than any other class. Among them may be mentioned Neuralgia Hysteria Asthma and Dyspepsia. "The tendency to pulmonary consumption has been thought, though probably on insufficient grounds, to have been counteracted by it" (Ford). — Pathological Changes, There is no particular lesion so far as has been ascertained, upon which Intermittent Fever depends. Those lesions generally found after a fatal termination of the disease are not essentially part of the fever, being often purely incidental and sometimes might have been absent without affecting the integrity of the disease, Organic changes in the

Spleen, liver and intestines. "Inflammation of the brain and its membranes with cerebral congestion and of fusion" (Ford). The most frequent change in the spleen is enlargement. This enlargement is generally very considerable reaching it is stated nearly quadruple its usual size. The hardness of the organ, according to the best authority, is confined to the exterior; while the interior is remarkably soft; and it is evident from this fact that the hardness usually felt in the left hypocondrium is caused by the distention of the investing membrane of this organ. This organ is often the seat of pain

caused by inflammation of its outcovering. "This inflammation is often visible after death; the tunic proprie being highly injected, as if by art", (Cyc. Prac. Med. Vol II P. 208) When an examination of the organ is made it appears hard and tense; but on being cut it is found to contain fluid matter, having the appearance of coagulated blood, the Liver is often found to be congested; it is also frequently enlarged with structural change. Softening and suppuration is sometimes observed. The intestines are sometimes affected with signs of inflammation "Should dysentery have existed before death there will

be found ulceration of the large intestines" (Cyc. Prac. Med Vol ii) Causes. Undoubtedly the most frequent cause of Intermittent Fever is Malaria, Indeed I think I might safely assert that every case of true Intermittent Fever is owing to this cause; notwithstanding the assertion of able authority to the contrary In regions where this poison is generated there is a striking peculiarity noticeable. That is, in the immediate vicinity vicinity of the poison cases of highly fatal bilious fever prevail; at a more remote distance remittents prevail; while at a still more remote distance Intermittents prevail. Malaria may be

either the predisposing or exciting cause of the disease, as a predisposing cause. Persons inhabiting or visiting infected regions may have their systems impregnated with the poison, which may remain latent, until called into action by debility, vicissitudes of weather &c. Acting in this way it may be called a predisposing cause, as an exciting cause, an individual debilitated by privations of sleep, food, exercise, indulgence of the passions, debauchery and fatigue exposed to the cause a far more susceptible to its influence than one whose health is unimpaired. If in this case the individual should be attacked with Gen. Malaria [illegible]

be said to be the exciting cause. The time of the attack after exposure to the cause is very variable, sometimes apparently in a few hours, while in others the cause appears to lie dormant for six months, or a year. The season, at which intermittents are most frequent is the latter part of summer and the commencement of autumn. The two extremes of life are certainly [illegible] Yet it is evident that persons of [illegible] age may be attacked. Negroes are less susceptible of the disease than whites. — Diagnosis. The diagnosis of this disease is [illegible] the diseases with which it is likely to be

confounded are Hectic and Remittent Fevers. It may however be tolerably readily distinguished from hectic by the irregularity of the paroxysms; the circumscribed bloom on the cheek; the almost-entire absence of headache; the peculiar burning sensation in the palms of the hand and soles of the feet; the less susceptibility of the bowels to be acted on by cathartic medicines; the clean and often glazed appearance of the tongue and the peculiar clear appearance of the complexion and bright expression of the eyes in this latter disease. From Remittent Fever it is not so easily distinguished yet by careful attention it can always be made out. The severe cases

of remittents offer no obstacles; and it is to mild cases of this affection that our attention is to be directed. In the mildest cases of remittents there is always present more or less fever. The torpor of the bowels is generally greater and the pain in the head more severe. It is impossible however to note on paper the minutiæ as nothing but strict attention in practice can find them out. Prognosis. Almost every case of uncomplicated Intermittent Fever ends in recovery consequently it is the least dangerous of the febrile affections. In the simple experience of Prof Ward He says that he does not remember a single case

of this variety that terminated fatally, and [illegible] mentions but one [illegible] of which terminated fatally in the cold stage. The disease sometimes terminates fatally with marked symptoms of apoplexy induced by the venous congestion of the cold stage, or the undue determination of blood to the brain during the stage of reaction. This peculiarity is most frequently met with in the [illegible] and debilitated, [illegible] of any important organ is of course a source of danger. The malignant variety of [illegible] chiefly is very fatal. In mild cases the chief source of danger arises from neglect or improper treatment and the secondary

affections arising therefrom. Among which may be mentioned chronic enlargement of the Spleen & Liver, Dropsy and general cachexy. These however are less grave than when they originate from other causes. The more complete the apyrexia the more readily will the disease yield to appropriate treatment. Herpetic eruption about the lips and ala nasi, is a favorable sign (Wood). The tendency to retardation in approach of the paroxysms is [illegible] sign. Relapses generally yield more readily than originals. The quartan type is said to be the most difficult of management, and the tertian the least obstinate. Treatment, — The

treatment of intermittents may be properly considered under two distinct heads; namely, that which is required during the paroxysm; and that which can be most successfully employed in the intermission, and without a doubt upon which the radical cure of the disease depends. In the majority of cases of mild intermittents in temperate latitudes, but little treatment is necessary during the paroxysm. There are cases however in which the intervention of our art becomes necessary and important; and in all cases the symptoms may be more or less alleviated. In the cold stage the patient should be kept warm by

Hot but non-stimulating drinks should be administered. Heat applied externally is very useful; hot bricks or bottles of warm water to the sides and extreme the stimulating pediluvia, If the chill be very severe and protracted, it may be proper and advantageous to employ the vapor bath, this may be very conveniently done by placing hot moistened brick wrapped in flannel near the body, having previously raised the covering by means of half hoops placed under them. A common tea-kettle may be used for the same purpose, If there is much pain and nervous disturbance the administration of a grain of Opium

or an equivalent dose of one of its
liquid preparations will be found highly
beneficial. It shortens the chill and
moderates the subsequent reaction.
If there should be irritability of the
stomach an anodyne enema may
be given; consisting of a ʒij of Lauda-
num suspended in ℥ij of Flax-seed
mucilage. Should there be great pros-
tration and faintness with a weak
and scarcely perceptible pulse; it be-
comes necessary to stimulate the
patient, and Carbonate of Ammonia
is the favorite remedy for this pur-
pose. Alcoholic preparations are objec-
tionable on account of their tendency
to augment the subsequent reaction,

External stimulation is frequently
resorted to and for this purpose
we may use Cayenne pepper heated
in [illegible]; warm water and salt-
[illegible] to the [illegible]
If there is much oppression of
the stomach with ineffectual
efforts to [illegible]
[illegible] of ipecacuanha may be
administered with the happiest
effect. It has been [illegible]
upon good authority that we
emetic at the commencement
of the chile, will put a speedy
termination to its progress.
According to the testimony of
Dr. Trotter a full dose of Opium

taken a short time before the expected occurrence of the chill, will generally have the same good effect. Twenty drops of tincture of opium in 1 oz of Ether is also very valuable. This practice is liable to objections particularly in plethoric subjects; on account of the tendency to increase reaction and determination to the brain. In regard to the application of the tourniquet to the extremities, there is such a variety of opinions amongst medical writers; that it is impossible to arrive at a correct opinion of its merits. The practice of blood letting in this stage is in

any opinion of doubtful efficacy unless there is evidence of strong internal congestion. Dr. Macintosh and Fleming however speak in the highest terms of this measure as a remedy in the cold stage of Intermittents. In the Hot Stage it often becomes necessary to moderate the movement particularly if there be delirium with strong local determination to the brain, or some other important organ. To combat these difficulties blood-letting is without a doubt the most powerful agent we can command and it should be unhesitatingly employed

if there is strong evidence of phlo-
gosis, the patient may be allowed
cold drinks slightly acidulated
It may be proper in cases of
high general excitement to give
one of the refrigerant diaphoretics
and the effervescing draught every
hour or two is generally well-
suited for this purpose, Sponging
the body with cold water, if the
skin is hot and perfectly dry,
is very grateful to the patient
and frequently conduces to a
solution of the paroxysm. It should
not be used if it causes chilly
sensations. In the sweating stage
very little interference is necessary.

the bowels and then administer the Sulphate of Quinia freely, For the cathartic effect a full dose of Calomel is the best purgative; for it at the same time unloads the congested liver, It should however in general be combined with some other purgative to insure prompt action It may for this purpose be combined with Rhubarb, Jalap, Scammonium etc of Colocynth, From two to four of the Compound Cathartic pills of the United States pharmacopoeia may be used for the same purpose, When there is no evidence of biliary derangement a full dose of sulphate of Magnesia will answer very well, Immediately

after the thorough evacuation of the bowels Peruvian Bark, or some one of its preparations may be given. Of these the sulphate of quinia is by far the most efficient. The bark in substance may also be used but quinia possesses many advantages over the crude Bark. It is less disagreeable to the taste, and is more acceptable to the stomach than the bark. It often impossible, on account of the size of the dose and its disagreeable effects on the stomach, to administer a sufficient quantity of bark to obtain its full effects; while with quinia the dose may be increased and still

prove acceptable to the stomach; that if we had to depend entirely upon the crude Bark all the benefit of this valuable remedy would be lost as no stomach could retain an equivalent dose of it. "The sulphate of quinine comes as near the character of a specific in intermittents as possible" (Ford) In the majority of cases it will resist the disease after the administration of the first portion. Especially is this the case with the Tertian and Quartan types, where there is time sufficient during the intermission to properly prepare the system for its administration. Sometimes it will fail at the first

exhibition; it seldom fails however with the second paroxysm. If however there should be a succeeding paroxysm or two, they will be milder than their predecessors. Its mode of action [illegible] is to be shrouded in obscurity. Of its supposed action Prof Wood makes the following remarks" All that we know of its mode of action is, that by its impression on the system and especially and in all probability on the brain, or nervous system generally; it supersedes the paroxysm on the principle, that as our [illegible] there is a strong indisposition in it to support two morbid actions of

different kinds, at the same time in the same part", I think this explanation of Prof Ford's as intelligible as any other, and shall adopt it as my views for the present. There is considerable difference of opinion as to whether quinia should be administered in the inflammatory variety during the existence inflammation. I am of the opinion that we should combat the existing inflammation before resorting to its use, except where from the preceding paroxysm or paroxysms we may fear a fatal termination of the next. In such cases it should be used unsparingly. Some authors assert that the stimulus of the

[illegible] is infinitely greater
more likely to support the inflam-
mation than the [illegible]. This theory
I fear will not hold good in prac-
tice. If however the inflammation
is not sufficient to sustain a
certain amount of symptomatic fever
[illegible] the [illegible] [illegible], we may
at once commence the use of the
[illegible], should typhoid symptoms
supervene on any occasion. [illegible]
should be administered at once;
and it is asserted upon good
authority that the inflammatory
symptoms [illegible] [illegible] [illegible]
[illegible] favorable character along
with the interruption of the Fever,

The amount of [illegible] necessary in the intermission, varies greatly in different individuals; from twelve to thirty grains should generally be used, Enough should be given in all cases to produce its [illegible] effect upon the system, viz, buzzing in the ears, perverted vision, partial deafness &c, after these symptoms are experienced it is unnecessary to push the medicine further and nothing more is requisite than to maintain this impression by small [illegible] of the medicine, if after the administration of the first portion the symptoms be very severe the next should of course,

be lessened in quantity; if on the contrary there should be no evidence of its peculiar effects the portion should be increased, much difference of opinion exists as to the paper time and manner of administering this drug, during the intermission, I am of the opinion that we are to be governed greatly in this [illegible] by the lenght of the intermission. If possible my plan would be to give the portion, generally about fifteen grains, in those cases commencing about [illegible] before the recurrence of the [illegible], the time between

the doses I would make at about
an hour and a half. I would pursue
this course so that the system might
be fully under the influence of the
medicine at the next expected re-
currence, If the length of the inter-
mission would not permit of this
course then lessen the time, between
the doses, A new theory has lately
been put forth which I am inclin-
ed to think will prove highly suc-
cessful, after the paroxysm has failed
of the system is supposed to have
rid itself of a portion of the
[illegible] poison, and in this state
is more susceptible to the influ-
ence of the medicine; consequently

we should give the Quinia as soon after the paroxysm as possible, some recommend a large dose to given. Say ten or twelve grains, on account of the high price of the article, they assert that it is as effectual as a larger portion given in divided doses, the bad effects of this medicine upon the system, is more attributable to its abuse in the hands of the careless and ignorant, than to its use by the learned & skillful practitioner, it is of little consequence wether the medicine be given in pills or solution: The former is preferable as being less disagreeable to the taste. The

medicine may be rendered soluble in water by the addition of some acetic acid. In cases of irritability of the stomach the medicine may be given by the rectum in triple doses. It may also be sprinkled upon a blistered surface, this latter method however is seldom resorted to except in malignant cases; when we should employ every available means to introduce the remedy into the system. A very valuable preparation of Peruvian Bark is the Compound Infusion of the U.S. Pharmacopoei. Four fluid ounces of this may be taken in divided doses during the intermission. These other preparations of

bark that we may sometimes succeed fully in play, the next most important Anti-periodic remedy in the cure of intermittents is Arsenic and Fowlers Solution is by far the most eligible preparation for this purpose It is very useful, in cases of children and those of a weak and irritable stomach; on account of its less disagreeable taste, this medicine often proves useful when from particular idiosyncrasies the the preparations of Bark have failed and it is often highly advantageous in combination with this latter remedy. It is decidedly preferable and may be used with less fear

of evil consequences in inflammatory cases, The ordinary dose is ten drops three times a day, Poisonous effects have been noticed from its too long use, characterized by adema of the face & limbs, It should be discontinued if it does not arrest the [illegible] at the end of a week after its administration. The dose must be proportionately less for children. Various other remedies for the cure of intermittents have been mentioned by authors, taken both from the vegetable and mineral kingdoms And each [illegible] his particular favorite. Thus the bark of the Cornus

Florida, Quercus Alba, Prunus Virginiana
and the different species of Salix
Colomb. Gentian, Quassia, Tanney,
Rue, Boneset, Virginia Snake root &c
from the vegetable world, The salts
of the different minerals as, Sulphate
of Zinc Sulphate of Copper, [illegible]
of Iron Tartar Emetic &c, [illegible]
[illegible] kingdoms, [illegible] of these [illegible]
tions may be used [illegible]
[illegible]dential reasons, or otherwise we
[illegible]
[illegible]
[illegible]
[illegible]
[illegible]
[illegible]

[illegible] should be scrupulously avoided; Confinement to the house should be [illegible], Prevention. The avoidance of Miasmatic regions during the Summer months, is [illegible] [illegible] effected [illegible] [illegible] [illegible] who are compelled to reside in these regions the entire year, should during this season avoid the morning and evening air and if compelled to go out, [illegible] always do so with a full stomach. The intense heat of the sun at noon should also be avoided. [illegible] guarded against, A sufficient amount of clothing should be worn to render the [illegible] [illegible] [illegible] [illegible] of Bark may be used in small doses as a prophylaxis,

An

Inaugural Dissertation

on

Gun-shot Fractures of Femur.

Submitted to the Examination

of the

Provost, Regents and Faculty of Physic,

of the

University of Maryland;

for the degree of

Doctor of Medicine,

by

G Lane Taneyhill,

of

Ohio.

February 1865.

Gentlemen and Professors,
I have the honor to submit for your examination, the following discourse upon
Gun-shot Fractures of the Femur.

From the earliest history of military surgery, up to the present time, there has been no one branch of the profession, that has excited more marked interest among surgeons, than gun shot wounds; and this is not astonishing, when we consider with what efficacy the ap-

plication of gun-powder to impli-
ments of war," and the superior
energy of this agent, is considered.
Gun-shot wounds, may be said
to consist of "injuries from mis-
siles projected by the force of ex-
plosion". They divide themselves,
into flesh wounds and contusi-
ons, and those complicated with
pacture of one or more bones.
They are modified in their nature,
by the form and kind of missile,
by the degree of force with which
it is propelled, and by the seat of
injury. Those of the lower ex-
tremities, are said to vary much
more greatly in the gravity of

results, and also in the treatment to be adopted, than those of the upper.

A fracture is defined as being a solution of continuity of a bone, produced by external violence or muscular contraction. They may be oblique, transverse, or longitudinal in their direction. They are called simple, when there is a mere separation of the bone into two parts: compound when there is an open wound communicating with the fracture: comminuted when attended with luxation, or laceration of large vessels. — But without entering upon any elaborate essay,

on gun shot wounds, — or different kinds of fractures, I propose gentlemen to present a few remarks, upon one of the most important subjects of military surgery — namely, Gun shot fractures of the Femur.

Gun shot fractures of the femur — that bone which is the earliest formed, the longest, the most compact in structure of all the long bones of the skeleton, — can, according to writers on military surgery, — only be caused by a missile striking it with immense force. Like all bones subject to fracture, it presents many varieties according to the immediate part [illegible]

[illegible].

Druitt, in his treatise on the Principles and Practice of Modern Surgery, mentions the following varieties, as deserving to be carefully studied; (1) fracture of neck of femur internal to capsular lig., (2) fracture of that part external to capsular lig., (3) of oblique fracture thro' trochanter major; (4) fracture seperating the epiphysis of trochanter maj.; (5) fracture just below the trochanter; (6) fracture of the shaft; (7) fracture of the condyles. — All these varieties may occur in military surgery, but those most frequent are, fractures just below trochanter, and fractures of any part of shaft

Symptoms - In gun shot fractures of the femur, the usual symptoms of pain, swelling, and helplessness of the part are present; crepitus, and at a certain stage, primary hemorrhage from an orifice, would present themselves as leading symptoms.
Prominent among others, is that general perturbation and alarm, which supervenes on the reception of the injury, and described as "the shock" of a gunshot wound. At this juncture, the features may be noticed as expressing the greatest anxiety and distress. The attending collapse, and mental

trepidation, are frequently most appalling, and always considered as far exceeding what is witnessed in injuries apparently of the same extent, inflicted in any other way. In most of these fractures, the leg generally is shorter than the other, and in some forms the foot may be turned outwards, but the position of the limb is anomalous, being also by some cause inverted. Hemorrhage is more common among the concussive phenomena, than as a primary symptom.

Diagnosis: The preternatural mobility, deformity, pain, swelling crepitation and utter helplessness of the leg, would be among the prominent diagnostic signs. If the trochanter major be fractured, the process will be generally drawn upward by the action of the glutei muscles; when the fracture is just below the trochanters, the deformity is greater than in other forms, and the lower end of the upper fragment, may be tilted forward, by the action of the psoas magnus and iliacus internus muscles.

The external distinguishing signs, may diagnose very satisfactorily

the affection: the orifice of entrance, and if the ball passed out,-of exit, may reveal the situation of the fracture, but its nature and extent are not so readily determined. One of the earliest rules for examining a gun shot fracture, or any gunshot wound, is, to place, or suppose the patient to be placed, as nearly as can be ascertained, in a position similar to that in which he was in relation to the missile at the time of sustaining the injury; thus the surgeon will establish a more satisfactory diagnosis, and afford a good opportunity by examination,

to learn the extent and na-
ture of the injury, with a possi-
bility of detecting any foreign
bodies that may have lodged
therein. It is said that
the celebrated Ambrose Paré,
acquired great reputation, by the
observance of this rule, when called
to attend Monsieur de Rieux,
grand master of artillery, when
wounded at the siege of Perpignan.
Paré, on this occasion, placed
himself relatively to the patient, in
a position to correspond as nearly
as possible with the direction from
which the ball was supposed to
come; — upon examination, he

found, just under the skin, a little lower than the scapula, the ball which several surgeons had been unable to find, and which they declared, had penetrated the chest!— Longmore in his treatise on "Gun shot Wounds," lays considerable stress on the rule spoken of above. If the orifice is sufficiently large, the best method to detect the extent of fracture is the introduction of the finger, in fact the wound may be dilated for its introduction, which may form a prophylactic measure in the treatment.

Prognosis: The prognosis in gun shot fractures of femur was generally considered unfavorable, but since the great improvement in the methods of treatment, the probabilities for recovery have been greatly enhanced. The surgical history of the present war in this country, abounds with examples of gun shot fractures of femur, of such extent and gravity, as apparently to warrant the most unfavorable prognosis; the treatment of which has nevertheless terminated very satisfactorily.

There are many influences which have a certain bearing, on the

chances of the patients recovery:
even moral circumstances must
not be disregarded. The probable
issues will depend in a great
measure, upon the gentle treatment,
and constitutional condition of the
patient. I have often noticed dur-
ing my experience in the hospi-
tals of the Federal Army, that the
efficient hygienic regulations
instituted, and so vigorously carried
out, have a very salutary influence
upon these and similar gun shot
wounds. In consulting with a
Confederate Surgeon, by the name
of Richardson formerly of Galves-
ton Texas, — at Gettysburg Pa. just

after the great battle at that place, I was assured by him, that from his experience south and north, he could safely testify to the fact, that, by exposing the soldiers to the "out door air" in the southern genial climate, he had observed a marked difference in the prognosis of those cases, as compared with cases treated in the north, and too often confined in close rooms. — Dr Van Biber of this city, remarked to his office students, that to get out in the open air in a reasonable time, and move about with foot hung in a well adjusted sling would bear

an important part in the prognosis, in gun shot fractures of the femur.

Treatment: In the treatment of these wounds, I respectfully report myself as a full convert, to the conservative method! Considering the great advancement in medical science by the discovery of that valuable anaesthetic Chloroform, which by its negative operation prevents pain and alarm and by its positive action may stimulate; also considering the great improvements in military surgery, as for instance, the avoidance of amputation of limbs by recourse to ex-

cision of joints, - resections of injured portions of the shafts of long bones; mitigated amputations, by removal only of those terminal portions of the extremities, which had been destroyed by the original injury; - and the practice generally, of the then vaunted plausible doctrine of conservative surgery, especially in the appliances for gun shot fractures of the femur, — we may well remark, that the experience thus gained from the many actions and results since the commencement of this lamentable civil war, that is now being so distinctively waged through our land, - will advance the

knowledge of gun shot wounds, and their treatment, a still farther stride towards accuracy; and certainly it must be conceded, that the art of surgery has received from the practical experience of this war an impulse and improvement unknown to it before!!

The general treatment is indicated by the natural course of the symptoms, stimulants while the shock lasts administered cautiously; inflammatory reaction often calls for local and general antiphlogistics; during the period of suppuration the patient should have an adequacy of good nourishing food, provided

no immediate contraindications exist. In the local treatment, if there be any hemorrhage, it must first of all be attended to, by not only depending upon the tourniquet, but the bleeding vessel should as soon as practicable be secured by ligature.

If any foreign bodies be detected, the propriety of removal must be decided upon, and by what means it is to be effected. For the drawing of the conical ball Prof. Smith's bullet extractors are considered a great commodity. The adjustment of lacerated structures, and the application of primary dressings, will demand the attention of the surgeon.

the dressings of a wound, must be varied to suit its appearances at different times; great cleanliness of the parts as also of the dressings should be strictly observed.
The best position of the limb according to the experience of most intelligent surgeons of the day, is that of slight flexion. In those cases that fractures which of course are compound, we must bear in mind, that some degree of shortening will of necessity occur, because from the nature of the injury the same degree of extension, and lateral compression, can not be maintained as in cases of mere simple fracture.

in civil practice, and also in consequence of necrosis of the broken extremities of the bone supervening.

In the course of the treatment the reparation of the injury is carried on, which is attended by the following changes, as given by a recent writer on restoration of bone to its normal condition; extravasation of blood, — after this is absorbed, the liquor sanguinis is effused and assumes the position of the blood, this consolidates, whereupon the serous portion is absorbed, the fibrin remaining becomes organized; this period of "plastic exudation" having continued

for eight (8) or ten (10) days, becomes cartilaginous. This mass contracts, increases in density and gradually becomes bone, the ossification advancing from the periphery: the fractured extremities are now surrounded by a bony case termed the "provisional callus". After this we have continuity truly restored by the formation of the "definitive callus", which takes place between the fractured extremities;- and the provisional callus is finally absorbed.

Coaptation and extention are the main principles of treatment in this species of gun shot fractures.

and that splint, or set of splints,
that most satisfactorily answers
these prominent requisitions, is the
one most deservedly to be adopted.
Many surgeons have invented and
improved different splints for this
purpose, among which we have
recommended to us that of Liston,
also Desaults with Physics modi-
fications and afterwards supposed to
be improved upon by Hartshorn,
(and even since remodified by Bache
by cutting a long fenestrum in
the outer splint), &c&c. —— But
without entering upon a descrip-
tion of the many apparatuses
recommended to be used in order to

retain the parts in proper position during the process of their treatment, and also avoiding to relate the many objections that can plausibly be made to many of them — I propose to give a slight description of, and manner of applying, — the one of my choice, namely, the "Anterior Suspensory Apparatus," commonly known in the army as the Anterior Splint — one of the great inventions of our illustrious Prof. N. R. Smith of the University of Maryland.

The American Journal of Medical Sciences for April 1861, gives a full description of this

admirable apparatus, from which Journal a mere outline will be sketched here.- A piece of wire of the thickness of a no. 10 bougie, is bent twice at right angles at each extremity, so as to form a frame three inches wide at one end and two and three fourths at the other, being three feet eight inches long. Along the length of this frame at a distance of about eight inches from each other, side pieces slightly bent, are firmly clenched.

The splint may be bent to suit the case, a lower angle bent about six inches from the extremity corresponds to the ankle, and shows

be about 120°; to hold the foot in position; an upper angle for the hip should be near the same degree, but about one inch farther from the end; the angle at the knee should be more obtuse say about 160°. This angles says Prof. Smith, may be easily made "by bending the splint over the back of a chair", and can be varied as is often necessary, to suit the particular fracture: when thus shaped it is advisable to wrap the splint with a muslin bandage, and it is ready for application. In applying it the limb must be very carefully adjusted, the operator being pro-

by the true nature and extent of the fracture, and the splint cautiously laid upon its (the limbs) upper surface. Prof. Smith then generally passes strips of adhesive plaster, or bands — one over the foot and around the splint, another around the ankle, another beneath the knee, a fourth above the knee and a fifth around the thigh near the hip.

The hooks of the suspensory apparatus, consist of strong wire about half the thickness of the frame, each being twisted once upon itself in the middle, forming them, as it were, a ring, and also having each end bent up about half an inch.

these are now to be applied to the
wire frame, and the limb is gently
raised so as to hang suspended in
"the slings": the requisite dressings
are placed upon the wounded parts,
and a roller bandage,—from the foot
up to the pelvis, (excepting immedi-
ately at seat of injury, where the
string firmly wrapped "Independent
bandage" is) should be carefully run.
The suspensory apparatus, consists
of a small iron pulley, a cord, a
small tent block, and the hooks above
described. The small iron pulley is
to be screwed into a firm support
above the bed, so as to be nearly
perpendicular over the middle of

the shin. The cord which is as thick as the wire splint, is to be passed over the pulley, and received through the small tent block, by which slipping it upward or downward, the limb can be elevated or depressed. Through a loop in the end of the cord, another cord about four feet in length, and having at each end a double knot attached, hangs double from the hook by its centre. I have noticed that in some of the ambulances, in order to facilitate the transportation of wounded men, "guys" of india rubber are attached on each side, about the centre of this double cord and also fastened to the sides

of the ambulance.

This apparatus as used in military and civil practice is not only extremely comfortable to the patient, but it possesses the great advantage of allowing the surgeon, to have access to the seat of injury, without removing any of the supports of the limb; - in fact we only need remove the "independent bandage," and the wound is prepared to be dressed.

Eminent Surgeons, in a not far distant city, previously prejudiced against it, - having once used it, say it may be safely recommended as the best apparatus that can possibly be used, in the treatment of gun-

shot fractures of the femur and wounds of the lower extremities generally. By its simple manner of producing extension i.e. obliquity of the cord – it exactly answers the objection made to the many apparatuses invented by other surgeons. Its general use promises to revolutionize this part of the surgery of war, and to render frequent and usual in our time results which only a few years ago, had rarely or never, fallen under the notice of a surgeon unparalleled in the extent of his experience and observation!

Case:

National U.S.A. Gen. Hospital.
Baltimore Md. Feb. 10th 1865.

Job James, act. 18 Pri. Co. C.
9 N.Y.H. Art. was wounded at
the battle of Cedar Creek Va. Oct.
19th 1864 by a minnie ball
which struck the left thigh,
anteriorly, from the right side, at
a point about two inches below
the lesser trochanter, producing
a compound fracture of the femur,
emerging
laterally on a line parallel with
the point of entrance. He was ad-
mitted to this hospital Oct 26-64
seven days after reception of injury-
having been hauled in a wagon

from a house near battle field, to the R. Road, — a distance of thirty (30) miles, — thence sent to Baltimore on cars, whereupon he was immediately placed in Ward 3 of this Hospital, under the care of Ser Keller a. a. Surg. U.S.A. a former graduate of University of Md. —

We immediately placed the patient under the influence of chloroform; careful examination and probing, revealed that a part of the ball remained in wound, — this was dextrously extracted by Ser Keller. —

The upper fragment of the bone being drawn out by the muscles about two inches, ample traction

with careful manipulation was made, whereupon the limb assumed a normal form.
We immediately swung it in that soldiers constant friend, the "anterior splint", promising ourselves to turn out a remarkable case of conservative surgery. + + + +
Jan 4 65, – Ten weeks after application of splint: convalescence has not been interrupted by any untoward circumstance, the pain experienced requiring only occasional anodynes in small quantities for its alleviation; treatment not more embarrassed than ordinarily occurs in civil practice after

simple fracture of the femur.
Upon removing the splint we
find that perfect union has taken
place, with very little deformity (slight
enlargement necessarily) and about
¼ inch shortening, only perceptible to
an experienced surgeon. + + + + + +.
Jan 16 – Patient sits up; has
assumed the erect posture on
the floor of the ward by the assis-
tance of a cane, allowing a slight
amount of weight on the injured
limb. Used internally Tinc. chlo.
ferri, also porter freely when
desired, presents a good healthy
complexion, has not lost much
in flesh.

Feb. 10. 65. Patient welcomed me in the ward by shake of hands! can be considered cured. So rapid has been his recovery and so uncomplicated by accident, that he has conceived himself habitually to be suffering from a very ordinary injury, rather than from one recorded among the gravest to which a soldier is liable, and which, the "father of military surgery" informs us in his "Commentaries on the Surgery of War," may be considered as one of the most unsatisfactory cases to be treated successfully, that can be presented to the anxious surgeon.

His case generally presents such a satisfactory result, that at this writing (Feb 11th) his brother has come on from New York to accompany him to his home.

An
Inaugural Dissertation
on
Dysentery
respectfully submitted
to the
Provost, Regents, and Faculty
of Physic.
of the
University of Maryland
for the
Degree of Doctor in Medicine
by
Reverdy B. Stewart
of Virginia.

Balto. Feby. 1865

Colitis.

Dysentery is an inflammation of the mucous membrane of the large intestines, and in some cases extends to the Ileum. It occurs in two forms, acute and chronic: The symptoms, by which the acute form is distinguished, are griping pains in the abdomen, tenesmus, and frequent desire to evacuate the bowels, the discharge consisting of blood and mucous, if the inflammation is confined to the rectum, but if extended to the Colon, feculent matter is thrown off.

This disease may come

on with or without premonitory symptoms, but it is usually preceded by slight fever, full pulse, anorexia, lassitude, and more or less disturbance of the whole system. As the disease advances, the tenesmus increases and forms one of the most prominent symptoms; the pain in the abdomen appears to settle in the rectum, the desire to evacuate the bowels becomes very frequent, and in some cases almost incessant.

The discharges very frequently produce a burning sensation in the rectum, which makes the patient resist the desire as

long as possible.

As the disease runs its course, the inflammation acting upon the mucous surface of the bowels. There are small portions of false membrane thrown off, sometimes hardened lumps of feculent matter. Feculent evacuations are followed generally by relief of the symptoms.

The extent of the inflammation may be ascertained by tracing the colon in its course, for instance, if there be tenderness along the ascending and transverse colon, the whole of the large intestines are said to be involved.

In nearly all cases of Dysentery after the disease has run on for some time, there is an odor peculiar to the disease, and in some cases the sympathy extends to the bladder, causing great inconvenience in voiding urine. The disease may run its course in from seven to ten days, if the symptoms abate in that time, we have the tenes-mus diminishing, and the tongue cleaning off, the discharges becom-ing less frequent, and more fec-ulent and the appetite improving.

But if the symptoms go on increas-ing beyond that time, the dischar-ges become more frequent, tenes-

mus increases, the pulse is more frequent and full, but feeble, the extremeties are cold, and cov. ered with a clammy sweat.

There is great tenderness on pressure over the abdomen, with Tympanites, and the patient grad. ually sinks from exhaustion.

Dysentery prevails sporadically and epidemically, complicated sometimes with intermittent and re. mittent fevers. It may set in a few days before an attack of fever, or after the fever has gone on for some days; the Symptoms becoming ag. gravated at each paroxysm, and diminishing as it passes off.

In some cases we have the Stomach and liver more or less deranged at the commencement of an attack, produced from the same cause, which is entitled "Bilious Dysentery."

This is characterized by a full strong pulse, and greater fever than in ordinary cases. The tongue is coated with a yellow fur, the urine is scanty and high colored. There is a feeling of oppression in the Epigastrium. The Skin is of a pale yellow complexion and there is more tendency to delirium.

This complication is one of the most dangerous.

The adynamic form occurs

to persons exposed for some time to depressing causes, such as in their tendency vitiate the blood viz: Impure air in ships and prisons.

We have in these cases symptoms of ordinary dysentery aggravated, with a feeble pulse and dark, brown tongue, delerium, and sordes about the teeth. In some cases the patient is prostrated at the commencement, and the system never rallies.

Causes.

The predisposing causes of this disease are the continued influence of heat increasing the exci,

tability of the mucous membrane of the alimentary canal, and — also deranging the liver, and relaxing the surface of the body, making it more susceptible to the influence of cold.

Another very common cause is, having the body heated during the day, and exposed to the dampness of the night air, checking the perspiration and directing the secretion inwards; while the hepatic secretion is at the same time arrested, and congestion of the portal circulation and consequently of the mucous membrane of the bowels results.

Substances directly irritant in their actions on the bowels are often exciting causes. Among these are mentioned green fruit or indigestible food of any kind. Hemorrhoids are sometimes said to produce it.

Prognosis.

The prognosis is generally favourable, but if there be tenderness on pressure in the ascending, transverse or descending colon, the case may terminate fatally, or if the disease continue beyond the second week, it is unfavorable, when the abdomen becomes tender

and tense, very unfavorable.

Bloody evacuations in the commencement are more favorable than mucous ones. Ordinary cases in temperate climates are seldom fatal. It is when prevailing epidemically or among great masses, as in armies or prisons or tropical countries, that it is most malignant.

Death may result from a failure of the powers of life, or from the intensity of the irritation, from gangrene, or from the continued wearing and exhausting effects of the combined inflamation and discharges.

"Anatomical Characters."

The most prominent changes are reddening and thickening of the mucous membrane of the large intestines. But if the disease be of short duration, there will be no ulceration. But in chronic cases ulceration is apt to occur.

In some cases we have a white mucous lining the intestines. Inflamation may extend into the Ileum.

In chronic cases the intestine is smaller and thicker than common with ulceration. There are also fungous elevations pun-

ning irregularly over the small intes-
tines. Pus is sometimes discharg-
ed into the peritonium bringing
on peritonitis.

Pathological changes
are not confined altogether to
the intestines. The mesenteric glands,
omentum, the Liver, and other
organs are diseased. In pro-
tracted cases the mesenteric —
glands are enlarged and soften-
ed, though seldom or never in a
state of suppuration. In some instan-
ces evidences of inflamation have
been found extending throughout the
colon into the small intestines. In
many cases the redness, thickening,

and ulceration extend beyond the mucous membrane, and sometimes involve the whole parietes of the bowels.

Diagnosis.

The only diseases that dysentery is likely to be confounded with is diarrhoea and Hemorrhoids. Dysentery is distinguished from diarrhoea by straining and tenesmus. From Hemorrhoids by the blood being more florid than in dysentery, also by the absence of tenesmus which is not found in Hemorrhoids.

Treatment.

In very mild cases without fever, which we might consider as the first stage, it may not be necessary to give anything more than a simple dose of castor oil with or without gtt xx of Tinct. Opii. But it is generally the more advanced stages of the disease that the physician is called. In cases of a somewhat higher grade we might give with advantage the Proto. Chlor. Hydrarg. followed in a few hours with Ol. Ricini or Magnesia Sulphas. If there should be evidences of a loaded Stomach, an emetic of Ipecacuanha should be given. Our first object should be to remove the cause of the disease, which is.

best done by cathartics. But it is necessary to use discrimination in our selections. Drastic purges for instance produce more harm, by irritating the already inflamed membrane than they can do by their evacuating effect. Laxatives or the milder purgatives should always be preferred. It is not always best to persevere with them until consistent feculent ~~matter is~~ discharges are obtained. Sometimes the dysentery has been preceded by a diarrhoea, which has cleansed the bowels. In such cases we could not expect to find solid feces in the stools. But when the disease commences abruptly without antecedent diarrhoea

it is generally proper to obtain at first a pretty brisk cathartic effect, and then be satisfied with (sustaining) a gentle peristaltic (movement, so as to keep the bowels free from irritating) accumulations. Another very important object in the use of purgatives is to unload the Portal veins. For this purpose nothing is superior to the Proto. Chlor. Hydrarg.

Diaphoretics are useful by giving an external direction to the circulating fluids, and by repelling from the blood vessels.

The patient should be cautioned about the danger of arising in a cool apartment,

without sufficient protection.

Opium is indeed an invaluable remedy in Colitis. It not only relieves the suffering of the patient, and produces sleep, which is necessarily much interrupted, but it does good by diminishing the morbid sensibility of the bowels to the irritating matters they contain. It also relieves spasmodic Constriction, thereby facilitates the action of cathartics. When there is much fever, it would be best not to administer Opium until the force of the circulation is reduced.

Nothing appears to do the patient so much good as sleep, after having

been almost completely exhausted by the numerous straining efforts made during the day. Therefore a good dose of Opium administered at bed time may secure for the patient a good and refreshing sleep.

Acetate of Lead is also employed but not until the bowels have been thoroughly evacuated by Laxatives. It is also highly recommended in acute cases, which are attended with Hemorrhage, given in doses of from one to three grains combined with Opium, every two or three hours. Sulphate of Copper and Sulphate of Zinc are highly recommended and are applicable to the advanced stages,

and to chronic cases when ulceration has taken place. They should be given combined with Opium, in the ordinary dose every two, three, or four hours. Peruvian Bark has been recommended, but is applicable to paroxysmal cases only, or those requiring tonic and stimulating treatment.

Local Treatment. General bleeding is seldom required. Cups and leeches however are of much importance, and should be applied when there is much pain and tenderness along the course of the Colon. Leeches may be applied to the anus in cases of severe Tenesmus.

Fomentations and emollient cataplasms to the abdomen are beneficial.

Blisters to the abdomen may be required.
Large emollient enemata have been
strongly recommended. They act as
adjuvants to the cathartics, and are
supposed to sooth irritation. They
should if well borne be repeated daily or more frequently. In the early
stages, warm water, Solution of
Starch, infusion of flaxseed and
in the advanced stages with debility
something more stimulating will be
required, such as; Mutton water
and Opiate Suppositories or enemata
are useful in allaying local distress.

Diet.

In very light cases without fever sol.
id farinaceous substances, such as,

boiled rice, stale bread, crackers &c. may be allowed, but in febrile cases it may be necessary to restrict the patient to mucilaginous or farinaceous drinks, as Solutions of Gum Arabic, and Arrow Root, thin gruels, infusions of flaxseed and Slippery Elm. Decoctions of barley, rice sago, tapioca &c. After general excitement has subsided, rennet whey may be given, and in cases of general debility animal broths and jellies may be given. The patient should refrain from using any of the salt meats, green fruits, pastry, or any indigestible food whatever until entirely free from every symptom of the disease. Care should be taken to keep the patient

and the patient - bed clothes clean and to remove all excrementatious matter, and to keep the apartment well ventilated, the air pure, and to remove the patient from the influence of the causes which may have contributed to produce the disease.

Inaugural Dissertation

On

Intermittent Fever

Of the

Thesis of the

University of Maryland

For the

Degree of Doctor of Medicine.

By

[illegible]

Intermittent Fever.

Intermittent Fever is a disease of Miasmatic origin, characterized by fitful paroxysms, occurring at stated times, and by the absence of pain between the paroxysms.

That portion of time between the paroxysms, or from the end of one paroxysm to the commencement of the next, is called the intermission, or apyrexia; while the whole period occupied by one paroxysm, and the succeeding intermission is called the interval.

After describing the disease of Miasmatic origin, and speaking

of the peculiarity of the paroxysms, we will now speak of the types of this form. These have reference to the length of the interval.

There are three ordinary types; the Quotidian, Tertian, and Quartan. In the Quotidian the paroxysm recurs every day; in the Tertian every other day; while in the Quartan the interval is much longer than either of the others, being three times as long as that of the Quotidian, and nearly twice as long as that of the Tertian.

In the Quotidian form of paroxysm recurs every day, in the Tertian every other day, and

in the Quartan every third day.

There are other types mentioned such as the Quintan, Sextan, Septan, and Octan; these however are of very rare occurrence

The types above mentioned are liable to a great many diversities.

The Quotidian may become double, that is two paroxysms may occur every day. The Tertian also may assume the double form; in this case there will be a paroxysm every day, occurring however at different periods, or with different characters on successive days; the paroxysms of alternate days exactly corresponding

with each other. Thus on the first and third days the paroxysm may take place in the morning, and correspond in every particular; while on the second and fourth days they will occur in the afternoon, and correspond in like manner, but differ from those of the two other days. Other varieties are mentioned by writers but they have no particular value, and are exceedingly rare.

Of the different varieties above mentioned, the Double Tertian is the only one of ten met with in practice.

We will now speak of the symptoms.

In a regular and fully formed paroxysm of Intermittent, there are three distinct stages, viz: the Cold, the Hot and the Sweating, which generally follow each other in the order just mentioned.

At first the paroxysm may be so mild as hardly to attract notice. The patient may have some fever, such as a feeling of languor or weariness, general uneasiness, shivering, yawning, &c.; with slight pain, perhaps in the back, impaired appetite &c.; this may constitute the whole disease for several days. But very often the disease begins the

patient without any warning
or failing in the midst of health
he is attacked with a paroxysm.

We will next consider the different stages in the order in which we have named them.

First- The Cold Stage- often some yawning, shaking &c; the patient experiences a chilling sensation, especially in the limbs. These increase until they have extended over the whole body. At this period he experiences shivering or trembling, rapid and successive shudders run through the frame, the teeth chatter, the body is shaken violently. He is unable to restrain

these involuntary motions.

In connection with the sensation of coldness, the surface is pale and contracted and presents a rough appearance, which is owing to the projection of the sebaceous and capillary follicles, while the proper tissue of the skin shrinks; from the same cause the hair is often felt to bristle, when a person is frightened. The hands are shrunken, the features contracted, the countenance pail, the lips and ends of the fingers often purplish or livid. The tongue is pale and moist; notwithstanding this, there is often thirst, and the patient

has no desire for food. There is often nausea and vomiting of food and bilious matter. The breathing is hurried, a feeling of weight or oppression is felt in the stomach, the pulse very often is small and accelerated, the secretions are generally scanty, but the urine is usually pale, limpid and copious.

The nervous system is much disordered. There is, independant of the symptoms by which we have alluded, severe pain of a neuralgic character in the back, loins and extremities, and sometimes in the head.

The cold stage varies somewhat in

its duration, sometimes not lasting more than a few minutes at other times extending to three or four hours

Having now described the Cold Stage and its various bearings, we will proceed at once to consider the next Stage, that denominated Hot Stage or Pyrexia.

The passage from the Cold to the Hot Stage is by no means abrupt, but on the contrary, more or less gradual. The first sensation of heat is felt about the face and lips, and it gradually extends over the whole surface of the body; but even at this stage, if a limb be moved into a cool place in the bed, sudden chills

are felt vibrating disagreeably
through the entire body. After a short
time however all traces of the Cold
stage disappears, and the patient
is affected with a universal heat.
The cheeks are flushed, the eyes
sparkle, the surface everywhere
reddened and the skin distended
with blood. The mouth is hot
and dry, the tongue furred and
all desire for food is lost. The res-
piration, though more regular
than in the chill, is still ac-
celerated. The pulse is more
frequent than in healthy and
is usually full and strong.
All the secretions are diminished,

the skin is dry, the urine scanty and highly colored. The head is always painful; the pain being of a throbbing character with distention in the temples, the pain appears deep in the head, while the chill is superficial. Along with pain in the head, there is often pain in the back and limbs. Convulsions are sometimes common, especially in children in the beginning of the Hot Stage. The duration of the Hot Stage like that of the Cold Stage often varies, sometimes lasting only a few hours, in others remaining

for sixteen or eighteen hours.

We now come to the last of the stages that of the Sweating Stage.

Respiration begins first upon the face and breast, and gradually spreads over the surface. It is sometimes slight, but generally copious, and occasionally very profuse. Upon its first appearance the patient begins to feel some relief, and the febrile symptoms gradually abate as it advances. The skin becomes cool, the excitement of the circulation subsides, the mouth heretofore dry becomes

moistened, the headache disappears, and the patient falls into a calm sleep and awakes free from pain. The different organs resume their functions, and the patient is freed in a great measure if not entirely from all the ataxic symptoms; and he suffers as a general rule no inconvenience whatever. He is enabled to pursue his occupations as usual; though it sometimes happens, especially if he has had the disease any length of time, and more especially if it be of the Levantine or Syrian form, he will suffer from weakness and

But instead of pursuing the regular course thus marked out the paroxysm may differ, may, in the first place, the cold stage may be very slight and exhibit but very few of its characteristic symptoms; in fact the Cold stage may be entirely wanting, the paroxysm being ushered in by the Hot stage.

This may also be said of the sweating stage, it may also be wanting, and in its stead there may be diarrhea or a copious flow of urine.

There are also cases on record where the Cold Stage has passed into

the Sweating without the in-
termition of febrile reaction, and
that in others the whole paroxysm
has consisted of perspiration with-
out either chill or fever.

We will next speak of the
Intermission or Apyrexia.

As we have already spoken
of it when speaking of the
Sweating Stage, we will not
dilate upon it now.

As a general rule after the
paroxysm has passed away the
patient is free from fever and we
would suppose that when the
fever disappears the symptoms
and signs of the disease would

also pass with it. In a great measure this is the case, but quite as often there still lingers behind more or less languor, ham in the back and loins, uneasy sensations in the head and epigastrium, with furred tongue and feble appetite. These however, as we stated when speaking of the Sweating Stage, are not so frequent in the Quartan type as in the Quotidian and Tertian, and are generally found in the early paroxysms. As the disease continues they also diminish, and it often happens that the patient suffers no inconvenience from them, during

the intervals of the attacks.

There is something very pe-
culiar in regard to the paroxysms
of intermittent fever recurring,
as they do at the same hour
of the day, each one correspon-
ding with the other in regard
to time.

But there are as in most
other diseases a slight deviation
from this rule; the paroxysm,
instead of returning at the
same hour of the day as that
of the preceding, may be some-
what earlier, or on the other
hand may be a little later.

In some cases instead of,

thus fluctuating backwards and forwards, each succeeding paroxysm may occur an hour or two earlier than its predecessor, so that the intermission is gradually diminished, or it may be that the paroxysm occurs an hour or two later, lengthening the intermission. In the former the disease is said to be an anticipating and in the latter a retarding, intermittent.

From the above it will be seen how readily one type may run into the other. Thus an anticipating Quartan may become a Tertian, and an anticipating Tertian

a Quotidian, while a retarding Quotidian is changed into a Tertian. In fact an anticipating Quotidian may pass from the Intermittent to the Remittent form.

As the paroxysms seldom occur during the night, we may naturally infer that sleep acts as an antidote; this is obvious from the fact that the paroxysms generally occur about eight in the morning, or at about the same hour in the evening; moreover, it is farther proven that in the anticipating and retarding cases, when the recording or advancing paroxysm reaches the

period of darkness, it is apt either to be arrested in its course to leap over the night backwards into the morning, or forward into the morning.

Intermittents if left to themselves will not run on indefinitely the milder cases often terminating as early as the fifth or sixth paroxysm, and that without the administration of medicine.

When an Intermittent has been checked by any means whatever it has a strong tendency to return, the slightest cause whatever brings on an attack, and very often occurs without any assignable cause.

Quotidians are most apt to return, but all the types are liable to return.

Grades & Complications.

Intermittent fever may be of a sthenic or asthenic character, with a vigorous reaction, full strong pulse and rich blood, or unusual depression in the chill, with uncertain reaction, feeble pulse, a purplish hue of the skin, and a depraved and unformed condition of the blood; or it may be any grade between the two extremes. In one form it may be inflamatory or feeble, typhoid or malignant. These differences depend not on the

peculiar character of the miasma, but on the previous condition of the patient, or other causes acting conjointly with the miasma. The typhoid cases are found chiefly among persons previously exposed to the want of proper sustenance, fresh air and the ordinary comforts of life, or at periods when an epidemic typhoid influence prevails in miasmatic districts.

Intermittent fever is not unfrequently associated with inflammation of one or more organs of the body; those most frequently affected are the stomach and bowels, the liver, lungs and brain

or its muscular membrane. When the stomach is inflamed there is usually a burning pain and tenderness upon pressure on the epigastrium, a craving for cold drinks, nausea and vomiting, and a rejection of substances ordinarily acceptable to the stomach. When the bowels are the seat of inflammation, it is manifested by griping pains in the abdomen, tenderness over some particular spot, diarrhea or dysentaric symptoms. The liver may be considered as being affected when there is pain and tenderness in the right hypochondrium, difficulty

of lying on the left side, pain in the right shoulder, nausea and vomiting, yellowness of the skin, and deep brown color of the urine. Inflammation of the encephalon may be suspected when the pain in the head is severe, the patient is painfully sensitive to light or sounds, the pupil is contracted, and delirium and convulsions are conjoined with the other symptoms.

Effects — If an intermittent at any time be suddenly checked, nothing of a serious character will follow except a disposition to return, but if permitted to run on indefinitely

—by frequent exposure to the causes it is apt to produce serious results.

The most common of these is enlargement of the spleen which often becomes so much enlarged as to occupy more than one half of the cavity of the abdomen, and when thus enlarged it is commonly called ague cake, and is of frequent occurrence in Miasmatic districts. The enlargement is most manifest in the Cold stage than in the Hyperemia; this is probably caused by the blood leaving the capillaries and becoming congested in the viscera,

and especially in the Spleen, which no doubt is intended to divert the blood from other and more important organs.

An other result of Intermittent is organic disease of the liver and Spleen, giving rise to dropsy, which often proves very obstinate and sometimes incurable; in this case the effusion is caused by the obstruction of the liver and Spleen, the veins of the abdominal viscera, and sometimes of all that portion of the system drained by the branches of the ascending Vena Cava become congested, and relieve themselves by effusion, and thereby producing dropsy.

An attack of insanity has been known to follow the cure of an Intermittent. Intermittents have also been proved injurious by suppressing various discharges - viz.. Menstruation, the lochial discharge, and the secretion of milk in women, and habitual hemorrhoidal discharges in men.

But notwithstanding the bad effects of Intermittents in certain cases, they have often proved beneficial, by superseding other diseases and removing morbid tendencies which had before resisted treatment.

The diseases to which they are

their remedial influence are those of a nervous character, among which are neuralgic affections, epilepsy, hysteria, asthma, dyspepsia, rheumatism and various cutaneous diseases.

[illegible]

[illegible]

[illegible]

[illegible] [illegible] [illegible] causes [illegible]

[illegible] the disease [illegible]

[illegible] [illegible] that [illegible]

[illegible] called malaria,

that it has the power of producing

the disease no one will doubt, but

it appears to find a more ready

entrance into the system, under

such circumstances, exposure

to the rays of the sun, excessive

exercise, cold baths, exposure to the

damp and evening air, often

bring on an attack, which if proper

care had been taken would no[t]

[illegible] have been avoided.

Diagnosis. The only diseases

with which it may be confounded,

-bination with Rhubarb, Jalap, Scammony or the Calomel may be given alone [illegible] dose of Sulphate of Magnesia or Castor Oil. In very mild cases of ague when there is no biliary disorder the [illegible] [illegible] [illegible] [illegible] purpose.

As soon as the bowels have been evacuated we may proceed at once to administer Peruvian Bark or one of its preparations [illegible] the Sulphate of Quinia is the most valuable.

In former times the bark in substance was much used but on account of its bulk the largeness of the dose required in some instances to produce the

desired effect in conjunction with its nauseating properties it has almost been abandoned

Sulphate of Quinia appears to possess its periodic property in a very high degree, if not completely. The advantages of Quinia are quite obvious we can increase the dose to such an amount that no stomach could bear an equivalent amount of the bark in substance.

As a general rule Quinia should not be given when there is much fever as it may aggravate the disease instead of relieving it but as soon as the fever is absent we can at once commence with it.

In ordinary cases not more than gr. x or xii will be required between the paroxysms. This should be so regulated that the whole amount may be taken [illegible] the [illegible] before its appearance, or enough to assure us that the medicine is acting which will be known by the cerebral sensations produced by it viz., roaring & buzzing in the ears & partial deafness; when these symptoms appear it is not necessary to push the medicine any farther, if [illegible] should be [illegible] it would be proper [illegible] the medicine [illegible] the quantity [illegible] [illegible]

As a general rule the medicine

should be given in divided doses, provided the intermissions is long enough to [illegible] may be given every hour, until the requisite quantity has been taken; by this means it is more readily absorbed.

[illegible] may either be given [illegible] pill [illegible] probably be better for children; and one doesn't be more likely to act, especially if there should be an absence of [illegible] the [illegible]

The [illegible] have been employed in the cure of this disease, but have failed to exert the same influence over the disease as that of Quinia.

As a general rule Quinia will answer every purpose in the case of Intermittent

often, provided this is within our reach.

It not unfrequently happens

stopped, they leave a disposition to

return. As these paroxysms appear

I have stated times for receiving it

would not be prudent to suspend,

In most cases, the first paroxysm

after the return is about the usual

time in last chill; under these

circumstances all that would be

Jos. Kugler

1865

The Inaugural Dissertation

on

Typho-malarial Fever.

Submitted to the examinations of the
Trustees, Regents and Faculty of
Physic in the University of
Maryland.
on the Degree of Doctor of Medicine
by

Joseph Taylor.

February 13th. 1865.

To every one, who has observed diseases as occurring in camps and in General Hospitals deriving their inmates principally from the field, it must have been long apparent, that a striking dissimilarity exists between such diseases and those observed in civil practice and described and treated in medical text-books. Such diseases take on a different type, more or less distinctive of the different influences, which modify Camp Diseases. The causes, which impress their peculiar sheaf on such diseases are in the first place those derived from localities and atmospheric influences, the Malarial causes, in the second, those produced by the crowded condition of camps and barracks, [illegible]

police and the decomposition of effete animal and vegetable matter exposed to the sun and making the air not only offensive, but also injurious to health. This cause, from the crowded condition of Camps, Hospitals or Barracks (Crowd poisoning) disposes to Typhus and Typhoid diseases and may be called the Typhoid cause, while thirdly those derived from deficient and unhealthy food, want of vegetables and inattention to personal cleanliness and more or less a depressed condition of mind producing a Scorbutic tendency, may be designated the Scorbutic cause.

These three different causes as Woodward in his Work on Camp diseases truly says, Malaria, Crowd poisoning and Scurvy are those, which modify diseases in the field and

no disease more, than the fevers prevailing under such conditions and it shall be my aim to point out the modifications in fever, when either the one, or the other of these three different conditions prevails. We have therefore first: Fevers in which the malarial is the prevailing element; second: Fevers in which the typhoid is the predominant cause and third: Fevers in which with the above two causes the scorbutic tendency is conjoined, and these three causes acting combined produce what may well be called: Typho-malarial Fever.

The causes above mentioned are in the main not so distinctive as it might at first appear, indeed it is sometimes hard, even for a close observer to point out the prevailing type

since they are blended in many fevers, without either the one or the other having a predominance; but for convenience of description I shall first treat of each one separately and then review them as a whole.

Typho-malarial Fever, in which the malarial phenomena predominate.

This variety, though sometimes commencing abruptly with a chill is usually preceded for a few days by languor, pain in the back and limbs, loss of appetite etc before the regular febrile symptoms set in, which as in Intermittent and Remittent fever are ushered in with a chill more or less severe, followed by a hot dry skin, and a quick pulse, sometimes delirium. The fever varies, but is usually of the quotidian or tertian type more or less distinctly marked towards the evening. But though at its commencement is merely shows the intermittent

or Remittent character, there is one symptom often very early developed in the disease to show its true character, and this is: abdominal tenderness, most frequently in the right Iliac region and, if careful pressure be made, the peculiar gurgling sound, symptomatic of Enteric Fever may be perceived. The tongue, as I have often noticed and can see daily before my eyes in patients, who have been serving in the swamps of Florida and Louisiana, sometimes coated with a white or yellowish fur, presents in many instances a peculiar aspect. It is enlarged, indented by the teeth at its edges, smooth, pale and flabby. In other cases it has a white and thick coat on each side of the median line, becoming thinner towards the middle. If the disease is not checked by proper treatment, there sets in towards

or during the second week within of symptoms, gradually resembling those of Enteric fever. Pulse quick, but feeble, loss of appetite and strength, tongue brownish and dry, often fissured, deliriums, deafness, subsultus tendinum, and death preceded by more or less severe diarrhoea indicating the abdominal lesions. The rose-colored spots and sudamina are sometimes present as in Enteric fever, but very often are absent entirely. In fatal cases all these symptoms are aggravated and death usually sets in towards the close of the second week. In favorable cases these alarming symptoms gradually abate, the tongue becomes moist and cleaner, the abdominal tenderness and diarrhoea lessen and the pulse slower and softer, the mental and nervous symptoms disappear and the patient

goes through a long and tedious convalescence
to slow recovery.

Cases of Typho-malarial Fever in which
the Typhoid symptoms predominate.

This second variety like Enteric Fever begins
insidiously, the patient ails unwell for several
weeks, complains of frontal headache, pain in
back and limbs, suffers more or less from
diarrhoea, and has decided febrile action during
the afternoon and evening. The pulse is
accelerated and weak, the countenance sickly
and suffused, expressive of distress, till in the
course of the second week the usual typhoid
symptoms set in and the disease runs its
course much in the same way as Enteric
Fever. This variety of fever is more than either
of the two others like true typhoid fever, but there

are still several striking points marking it as typho-malarial, and the principal of these is its strong tendency to periodicity with remissions and exacerbations of the symptoms at stated times, sometimes taking on a true tertian type, returning distinctly every other day, apparent even to the patient himself. Then there is the enlargement of the spleen, yellowness of countenance and tenderness in the hepatic region; all symptoms more or less characteristic of the malarial origin of the disease.

Cases of typho-malarial fever, in which the scorbutic element prevails.

In this variety of the disease the course is usually similar to the two above described disorders, coming on insidiously and assuming its true character during the second week.

But besides these malarial and typhoid symptoms we have some others clearly showing the scorbutic tendency; even if the patient, as it very often happens has not shown before signs of a scorbutic diathesis. There is great lassitude and mental despondency, a clay colored skin, broad, pale and watery tongue, puffy gums, bleeding on the slightest occasion, heart irritable and apt to palpitate, rheumatic pains scattered more or less over the body. The appetite is capricious, craving sometimes the most indigestible articles of food or drink in the shape of unripe fruits and acid drinks, causing and keeping up a constant diarrhoea. When at last the fever sets in, it very often shows a decided Intermittent tendency, assuming either the quotidian or tertian form. During the first

week the heat of skin is little increased, in the course of the second the typhoid symptoms set in, but without the characteristic spots or eruptions of Enteric Fever. Delirium and sometimes stupor supervene, the tongue becomes dry, cracks and bleeds, while also sometimes hemorrhages occur from gums and bowels. Livid discolorations occur in various parts of the body, often causing the disease to be mistaken for true Typhus, the more so, if decided cerebral symptoms prevail. This variety is the most fatal, though under proper treatment many recoveries take place.

These are the principal varieties of Typho-malarial Fever and as stated before it is not allways very easy to see, which of these three varieties prevails, the three blending often and giving the disease its true character. It is, from what has been

said heretofore of the greatest importance to distinguish the prevailing tendency of the disease, since on its proper diagnosis and treatment very often hangs the life of our patient, each variety requiring its proper plan of treatment. We have now considered the disease in its three component parts; malaria, typhus and scurvy, now let us consider it as a whole and review the principal symptoms as occurring in the disease, and first of the pulse. Some variety exists at the commencement, but it soon becomes weak and frequent, seldom much above 100 in the first week, it increases to 110 and 120 in the second and third. Cases in which it persists over 130 for several days generally end fatally. The tongue is generally coated with a thin whiteish coat in the early stages and as above stated in malarial cases is covered

with a thick yellowish white fur on each side of the median line, while in the middle it shows the red and enlarged papillae. In the scorbutic variety the tongue is large, smooth and clammy, indented at the edges and has a shining appearance. In the second week the tongue takes on a different aspect, it becomes dry, often covered with a yellow fur, sometimes brown and cracked, the last the least favorable of the two. The skin is usually harsh and brany, the urine high colored and scanty, occasionally albuminous. Cerebral and nervous disturbances are prominent symptoms in the disease. The delirium is seldom violent, but low and muttering and the patient is entirely indifferent to his fate. Restlessness, insomnia, loss of hearing, subsultus tendinum generally prognosticate a fatal issue of the disease. The abdominal symptoms

differ greatly in the different varieties of the disease. When the typhoid and scorbutic tendency prevails Diarrhoea is a frequent and very often unmanageable symptom, while in the malarial variety the bowels incline rather to costiveness. The rose colored spots and typanites are very often wanting. In fatal cases we find inflammation of the solitary and agminated glands and it is fair to presume, that in favorable cases the same is the case. The duration of the disease is very uncertain, death usually occurs during the 2d week, but may occur sooner or later. The convalescence sets in and progresses slowly and relapses are by no means unfrequent. The average duration of the disease in favorable cases is set down at a little over four weeks; it varies however in the different types of the disease, for, while in the malarial it may be less

in the scorbutic variety it is usually longer.

Complications. Among the complications may be mentioned as the most frequent Bronchitis, Pneumonia, perforation of the intestines from ulceration and Cerebral Meningitis. Abscesses in various parts of the body and bedsores frequently occur, as also a tendency to chronic Diarrhoea and chronic disease of the Kidneys. The liver and spleen are often enlarged, the heart irritable.

Post Mortem appearances: The characteristic lesions of typhoid material fever is a diseased condition of the closed follicles of the small intestines. They are enlarged, soft and juicy, covered by a dark pigment, and ulcerated. The ulcer small at first, extends gradually, often with ragged undermined edges, it may even perforate the bowels. The glands of Peyer undergo a similar alteration.

The Mesenteric glands also are enlarged. The stomach is usually healthy, while the liver is seldom free from disease. The spleen is enlarged, soft and of a very dark color. The heart is pale and flabby frequently filled with coagula, which have very often been mistaken for Cardiac Polypi. The brain presents very little of interest in this disease, unless it has, as sometimes happens, been complicated with Meningitis, in which cases there is venous congestion and the usual products of inflammation in the Encephalon.

Prognosis: This disease, which has been the scourge of all armies in the field, has as medical statistics show, been by no means as fatal during the present war, as it has been in some of the European wars, but the prognosis must nevertheless be guarded, since seemingly mild cases often prove fatal, while

those of an apparently very grave character and in recovery.

Treatment: The treatment may be divided into the hygienic, by far the most important, and into the medical, which must meet the symptoms as they arise. The disease being as its name and symptoms indicate very often of malarial origin it must be of prime importance, that this cause should be removed. This is not so easy as at first sight it might appear. The exigencies of a campaign, the march of armies, strategic lines of attack or defense make it often impossible for the military commander to choose his ground on account of its salubrity, and the military Surgeon, to whose care the health of the troops is entrusted, has only the choice of the lesser evil. But still he can do a great deal. He should avoid low, moist grounds

for the location of his hospitals, away from marshes and streams, and as far as circumstances will permit must pitch his tents on some dry porous soil and see, that they are well ventilated by holes in the top, or if a hospital, that it is allways supplied with fresh air, that it is frequently cleansed and that its surroundings are every day policed. Offensive and decomposing animal and vegetable matter must be removed or burned, latrines and trenches covered over with earth or lime as often as circumstances require it and if this will not suffice, they must be filled up and new ones dug. Of the different disinfecting agents in common use any may be employed together with the various measures above recommended either in camps or hospitals, for though not of themselves able to correct or neutralize

malaria, they are nevertheless invaluable in tents and hospitals, not only to remove offensive odors, but also to destroy in some measure noxious effluvia. As far as diet is concerned no certain rule can be laid down; but it should be wholesome, easily digestible and nutritious, supporting as soon as adynamic symptoms show themselves. In the commencement, when the fever runs high, low diet may be enjoined, but such cases are comparatively rare, as the patient himself for the first few days, when low diet might be appropriate, abstains from food allmost entirly. Usually the patient from the first requires beef-tea and other supporting nutriment. During the progress of the disease and during convalescence the diet may be varied and broiled beef, mutton and poultry may be given and in cases with a decided scorbutic tendency, vegetables

in the shape of oranges, roasted apples, tomatoes and potatoes may be allowed, at first sparingly, to avoid offending stomach or bowels, afterwards, if found to agree, the supply may be more liberal. The foregoing remarks may serve as an outline of the dietetic measures to be pursued in Typho malarial fever, but it being often possible, if the Surgeon be on his guard, to avoid the scorbutic tendency by making use of such remedies, as may be supplied by the surrounding country, if the Government forwant of transportation is unable to supply a sufficient amount of vegetables to preserve health, it may be not out of place here to mention the use of the Maguey or Agave Americana first used by Asst: Surgeon G. Perrin U.S.A. in Texas on the recommendation of the Catholic priest of Laredo. And I have seen myself, while serving

on the frontiers, scurvy suddenly disappear at the opening of spring, when the soldiers, more or less affected with scorbutic symptoms, made use of wild lettuce, the young shoots of various plants and dug and eat roots indicated to them by the Indians.

The therapeutic measures vary still more in this disease, than the hygienic. If the disease takes on the intermittent type, the Sulphate of Quinia in large doses will sometimes arrest the disease. But even if it does not cut short the disease, as very often happens, it controls the malarial symptoms and seems to modify and render milder the Enteric. If used, it should be used in full doses so as to exert its influence on the system and if found to ameliorate the symptoms it may be repeated. Arsenic also has been mentioned as exerting a beneficial influence on

the disease, especially on the enteric lesions characteristic of the typhoid type. But the most potent remedy in this disease is the judicious employment of alcoholic stimulants with the supporting diet above mentioned. They should not be used indiscriminately, but only, if the prostration, in spite of the supporting diet, increases. Wine whey or sherry pure may be used and if the prostration still continues, we must have recourse to milk punch whiskey or brandy, of which the first seems to be preferable on account of the great sophistication of the latter in this market. The quantity prescribed must vary with the condition of the patient and their effect should be watched to prevent over-stimulation and its bad consequences. If the bowels are constipated some mild laxative may be given, such as Rhubarb and Magnesia, Rochelle salt or a Seidlitz

powder, while drastic purgatives are to be avoided. In the majority of cases the bowels are in a relaxed condition, especially in the typhoid and scorbutic variety and require treatment to prevent the great prostration produced by a constant diarrhoea. The Chalk Mixture, Hope's Camphor mixture, the mineral acids and anodyne Enemata are appropriate remedies. The state of the kidneys in this disease also requires attention. The urine as above stated is usually scanty, high colored, sometimes albuminous. Often there is retention or entire suppression, in which later case grave Cerebral symptoms coexist. If the urine is scanty Diuretics, Acetate of Potassa, Spr. Ether nitr. and Extract Juniper may be employed, and the Surgeon must be on his guard not to mistake a retention from paralysis of the bladder for a suppression, but must examine the

hypogastric region frequently and convince him self by percussion, whether the bladder is empty or distended, in which latter case the catheter is the only relief.

The condition of the brain and nervous system also require attention. Where there is great nervousness, watchfullness, twitching of the muscles etc., Camphor and diffusible stimulants may be given, and Dover's powder, Opium or one of its sales in a full dose at bed-time. Sometimes Opium combined with Quinia answers an excellent purpose, at other times Dover's powder is to be preferred on account of its relaxing influence on the skin. The delirium, if any exists, requires no special treatment except that appropriate for the disease itself, but there is one measure allways useful in such cases and it is: to have the haircut short and cold water or Vinegar

and water applied to the scalp. If there is decided prostration and weakness accompanying the delirium, alcoholic stimulants are by no means contraindicated and if the delirium passes into coma the patient may sometimes be roused by the application of a blister to the scalp, but this measure should only be used in such cases. Of the remedies employed for the characteristic abdominal lesions, Nitrate of Silver and Oil of Turpentine seem to be most useful. The first, though at one time enjoying great credit in this disease, has come lately almost out of use and has been superseded by Oil of Turpentine, which seems to have some specific influence on abdominal disorders. The period for its administration is usually during the prostration of the second and third week, when the tongue is dry, often cracked, when there is lymphaniasis and a dry skin.

Chlorate of Potassa is another remedy which has lately come greatly into use under the impression, that it would supply some of its Oxigen to the blood and seems to be useful principally in those cases with decided Cerebral symptoms and a scorbutic origin. Such is a brief outline of the treatment to be pursued in this disease. Complications, such as Pneumonia, Bronchitis, intestinal perforations and Meningitis must be treated according to their nature and on general principles, since their treatment does not differ from that, when they occur alone unaccompanied by Typho malarial Fever. The only caution required in the treatment of this disease is, that depleting and depressing remedies should be avoided, since the type of the disease is adynamic from the first.

1806

An

Inaugural Dissertation

On Pneumonia

Submitted for examination

By the Provost, Regents and

Faculty of Physic

For the Degree of Doctor

in Medicine —

By Caleb B. White

of Maryland.

[illegible]

This disease presents several points [illegible] peculiarly recommend it as the [illegible] of an essay. Its wide geographical prevalence and its great [illegible] in all classes of society [illegible] in our own country; the meteorological [illegible] of [illegible] favorable to its development. Make it of the utmost importance to the practitioner. While to the student its diagnostic pathological conditions render it a field of study of no less importance, and of the deepest interest.

Pneumonia

then is inflammation of the parenchyma of the [illegible] this it is only necessary to state is composed of [illegible] infinite

number of tubules [illegible] ramifications of the bronchi subdivided into the air vesicles all of which are [illegible] by areolar tissue in which ramify the blood vessels. The principal cause of the variety to which we are confined the (acute) is exposure to cold and moisture the rationale of the disease may be [illegible] stated. Where there is inflammation there is perversion of function. The inflamed lung is no exception to this rule. And throws the burden of [illegible] the circulation fluid upon its healthy mate for by a beautiful [illegible] of nature conservative power this disease is in far the greater [illegible] of cases [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] -

the respiration is laborious and the blood is imperfectly purified. It is thrown into the Brain in this condition and delirium is awakened. The controlling power of that organ is lost and the Hearts action ceases. Or in another case the inflammatory progress tends towards suppuration and fatal lesions of the respiratory organs are the only [illegible] or yet again the functional [illegible] is of so great [illegible] that respiratory function is too much interfered with and Apnoea is another fatal [illegible]. But by as much as the favorable progression of this disease is more pleasant to all concerned. is [illegible] it more [illegible] [illegible]

to the entering air, and the current
of [illegible] [illegible] through its
[illegible] pure, invigorating and nou-
rishing its possessor. Such is the course
of this most instructive disease. But
not always does it follow this [illegible]
The Hepatized lung may go on to change
still further in structure by a [illegible]
process due to infiltration of [illegible]
matter. Like collections of pus in the
[illegible] this may be circumscribed by
the walls of an abscess and when the
matter finds exit, a cavity may be left.
Or the pus may be absorbed and all
the evils of Pyemia be the result. Having
thus described the general course of this
it now remains to speak first of its

[illegible]
physical examinations both at the
beginning and at its [illegible]
and last of the treatment [illegible]
to be pursued. [illegible] acute [illegible]
the mucous membrane of nose and
fauces becomes inflamed. He is hoarse
and has perhaps a slight [illegible]
difficulty of breathing. [illegible]
of a day or two he experiences a [illegible]
or less masked; and a pain of more
peculiar [illegible] inating character [illegible]
region of one nipple, generally in the
right. He now has a [illegible]
side, and [illegible] at full [illegible]
tion gives him a severe tearing rending
pain. He has a dry cough which

aggravates his stitch, and soon he
begins to expectorate a peculiar [illegible]
[illegible] [illegible] [illegible] [illegible]
pathognomonic of the disease. This
expectoration is the fluid [illegible]
the air cells mixed with a little [illegible]
from the congested capillaries. This
is tenacious and gelatinoform, not
streaked with blood as in [illegible]
nor pure blood as in phthisis. [illegible]
so as to give uniform color to the mass. The
extreme viscidity of the expectorated
matter is considered by many as
diagnostic of the stage of hepatization.
The fluids are compressed together so
that they are not voided with the
[illegible] than they were in the [illegible]

always [illegible] the [illegible]
ration at a late period of the disease
is a fluid colored like the [illegible]
prunes or of tobacco; as a distinguished
American Physician observes, is
more common than that of the yel-
[illegible] of the inflammation.
But besides these symptoms there is
that of fever, so common an attendant
on inflammation. This is present
in Pneumonia and its ordinary occur-
rence has given the popular name
of [illegible] to the affection. The
fever is of a sthenic character and
presents the rapid and strong pulse. The
Hot and dry skin. The throbbing pain
in the head and loss of appetite. It

[illegible]
yellow fin. When venesection [illegible]
in highest reputation, the blood was
found to buff and cup as in other
inflammatory affections. [illegible]
is sometimes present and attended
with increased difficulty of [illegible]
and is a symptom of grave import, as
it denotes imperfect purification of the
blood. Dyspnoea is [illegible] noticed as
concomitant of other symptoms. This
varies in different cases with the same
extent of disease. But it is generally
present from the outset and as the
disease advances up to the acme of
depilization. As the respiration [illegible]
laboreous and quickened the patient

lies either on the back or on the
affected side. This decubitus was
formerly considered as diagnostic
sign; and it has yet its consideration
for compression impedes natural
breathing; and the patient in Sa-
monia has only one lung; and if he
lies on the sound side this already
overtasked organ must be still more
obstructed in its motion. By these
general symptoms we see how death
may occur; either by apnoea considered
in the light of suffocation, or in the
signification of lack of oxygen for the
blood inducing Coma and Asphyxia,
or by the absorption of pus inducing
Pyemia, or by the long continuance

of the fever terminating the existence of the patient asthenia. We now come to speak of the means of diagnosing comparatively recent introduction of percussion and auscultation. Of these the auscultation are the most important. But the percussion gives a sound in the first stage if at all different from the normal a little duller. But as the second stage progresses plainly marked and increases dullness is perceived; returning to normal resonance according as resolution advances. But to auscultation the attention is to be given as its [illegible] are of a much more extended and at the same time of a more practical

character. and the detection of adventitious sounds called rales, and of what kind these rales are constitute experiments in this practice. The bronchial rales are the moist distinguished as the coarse fine, and subcrepitant; and the dry sibilant and sonorous. The sonorous and sibilant naturally point out the the extent of the disease from large tubes to smaller. And the bubbling sounds of the moist rales from the same circumstance indicate the same thing. But it is in the latter stage that attention is called to bronchial sounds. In the first stage the half-filled air vesicles give out the peculiar rale called crepitant a very

fine [illegible] crepitating sound heard
on inspiration as the partially agglu-
tinated walls [illegible] vessicles are caused
to expand. On the sound side when
the breathing must be done the
natural vessicular sound are
exaggerated. Bronchophony [illegible]
is meant exaggeration of vocal sound
is also present. [illegible]
is to be attached to all these [illegible]
In the first place the one [illegible]
rale is pathognomonic of the disease
showing that the lung is the organ
diseased and that inflammation
is the disease. [illegible] the means of
differential diagnosis. Then [illegible]
show us the prognosis of the disease.

Pneumonia generally begins at the lower lobe of right lung, and when we miss the crepitant rale here and find above we know that the lower lobe has become ~~[illegible]~~ [illegible] until the middle lobe entered the stage of [illegible]. If we can bound the dullness and it remains the same in whatever position the patient be placed, then we know it is not from pleuritic effusion, [illegible] surface of fluid will always [illegible] with the position of the patient. [illegible] if no sounds can be heard but the bronchial rales high up and the changed voice; we know that the [illegible] is hepitized or so compressed as [illegible]

If later still crepitation returns we know resolution has begun in work of repair. Or if we hear coarse moist bubbling we fear the fatal result of [illegible] infiltration. Day by day after the second stage has reached its limits as life or death is to be the fate [illegible] the dullness and labored sounds [illegible] forth into the clear vessicular resonance of health. Or grow more obscure and intense in character, as one or the other fatal termination takes place. It now remains to speak of the [illegible]. The [illegible] was formerly considered the controller of inflammation and [illegible] pneumonia was always used and unhappily missed-used. But since the

doctrine of healing symptoms and avoiding routine practice has [illegible] the ascendancy. Venesection has been discouraged, and it has become almost a routine not to bleed. But in the plethoric full habited patient, in the early stage of the disease, experience shows that depletion by the lancet is of great value. The arterialization of the vital fluid is thrown on the one lung and if the quantity of blood be diminished that lung comprising the remainder [illegible] thoroughly and the [illegible] be avoided. To assist in this depletion [illegible] are of service. Tartar emetic not as an emetic unless the bronchi

Therefore advising a jacket of
plaster. The other recommending
small and repeated rubefacients.
Poultices and warm fomentations
are of service in the second stage
favoring as they do in other situations
the evacuation of matters. The
symptoms must be met and evented.
That is when the labored circulation
gives evidence by change in the
pulse, by [illegible] and pain [illegible]
the [illegible] agitated blood has [illegible]
[illegible] so to speak, whipped into a
[illegible]; which will eventually prove a
fatal barrier. It has been demon-
strated by physiologists that the [illegible]
owes its fluidity to the ammonia in

its composition. And hence Carbonate
of Ammonia is given in doses from
[illegible] every two or three hours, and
its effects have been most happy. At
the same time its diffusible stimu-
lation is of great value. So when
the tumultuous action of the
heart Veratrum Viride has claimed
a place in the therapeutical list
applicable to this disease, doing
away with the dangerous Digitalis
and limiting the use of the tarp [illegible]
Antimony, when great prostration
takes place the patient must be sup-
ported by nourishing diet as very [illegible]
and by diffusible stimulants [illegible]
[illegible] must be given to obviate death

by Asthenia. The disease may
fatal in the first stage and, from
the tenth to the fourteenth day
of second stage. By [illegible]
and judicious treatment of all the
symptoms; a favorable issue may
be expected.

165

An Inaugural Dissertation

On

Diphtheria.

Respectfully Submitted to Examination.

By

Lenard. S. Williams

Diphtheria

A peculiar and very probably a specific inflammation of the fauces which sometimes extends into the larynx and trachea, "characterized by the formation of an aplastic membranous exudation upon any portion of the cutaneous or mucous surface which is exposed to the contact of the atmosphere".

History.

It appears to have been known for at least twelve or fifteen hundred years, but it is only comparatively of late that it has become of so frequent occurrence as to have engrossed the minds of -

medical writers with its important pathology and treatment which are still very imperfectly understood, though its fatal tendency is so well known as to give it a place among the diseases of importance as regards its nature and treatment.

Nature

The pathology of this disease is as I have before stated involved in doubt. Some writers maintain that it is only a variety of croup rendered more malignant by the constitution and general health of the patient at the time of the attack, that it very closely-

resembles croup is very true. The main distinctive points of the disease is that diphtheria is a blood disease generally attended with great depression while croup is a local acute inflammation and is usually confined in its attacks to children. The exudation in croup almost always commences in the larynx and trachea, in diphtheria in the fauces and from thence passes into the larynx. Others again suppose that it is nothing more than Scarlet Fever characterized by a predominance of the throat symptoms, this again is disproved by the fact that it does not protect from this disease neither-

does this fever protect from it.
The sequelæ are also different showing
that the two diseases are distinct
and separate. In diphtheria we
never have any dropsical symptoms
but we do have a peculiar loss of
nervous power and local paralysis
which never occur in Scarlatina.
Some think it is dependent on a
parasitic fungus — the oidium alba-
icans? this is denied by a great many
as a cause of the disease though it
is probable that in all cases in which
a careful examination is made they
will be found to exist. The most that
we can say at this time of the pathology
of this malady is that it is essentially

"a blood disease partaking of a zymotic character"

Symptoms

The symptoms of this disease are various in the commencing and advancing stages, as also, in different cases. In the commencement of the attack they are usually those that attend common angina, such as soreness of the throat, and difficulty in swallowing, with fever and headache more or less severe. The fever is usually of an asthenic type though in the worst cases there may be little or no fever. But this condition is gradually followed by symptoms of more serious indication and upon making an examination-

the fauces and tonsils will be found of a bright red or dark color and upon one or other tonsil sometimes in the fauces small irregular circumscribed patches of a whitish, yellowish, or ash-colored false membrane formed by matters from the blood which coagulating form a membrane of variable consistence, usually of a tough and dense character at other times of a friable or pulpy nature. The exudation now continues spreading irregularly over the tonsils and fauces. The sub-maxillary and cervical glands are usually somewhat swollen at this period. The pulse is small, quick, and feeble. The urine is some-

times found to contain albumen.
After a time the membranes begins to
separate and be re-formed giving
out a very fetid odor, and if the disease
is not arrested by the remedial means
employed the membrane extends into
the larynx, constituting diphtheritic
croup.

The symptoms now increase
in severity, deglutition very difficult,
fluids taken by the mouth return
through the nostrils. Respiration
becomes very much oppressed,
the voice and becomes hoarse
or suppressed. There is great depression of the vital powers and
the patient is in a semi comatose-

condition at this time sometimes earlier the discharge passes into the nares and is attended with a copious discharge of very offensive sanies which is characteristic of this extension.

If the false membranes are removed by mechanical means the mucous surface is found to present no solution of continuity, but there will be seen minute bleeding points all over the surface from which the membrane has been removed and in a short time it will again be reformed.

The appearances of the membrane when examined by the microscope are "Such as are usually found as constituents of such structures but which may-

somewhat it is composed chiefly of molecular particles, epithelial cells of all kinds and shapes, pus and blood corpuscles," and sometimes if not in all cases, which I think would be if sufficiently careful examinations were made a parasitic fungus.

Causes.

The causes of this disease are not at present certainly known, various conditions are accused as causes, the most probable of which are a peculiar condition or predisposition of the system. Those states dis-posing to derange or debilitate the general health, such as exposure—

to cold, excessive heat, sedentary habits,
with a too luxurious diet, the depressing
passions, violations of the laws of
health, and in truth all sources tend-
ing to depress the vital powers are
all sometimes the exciting causes
of this disease. The parasites found
in the false membranes in this
disease are thought by some to be
the cause of this terrible malady and
with a great deal justice apparently
when we take into account the well
know irritant actions of parasites
on mucous surfaces especially when
they are predisposed to inflammation
as they undoubtedly are in this affection
and it is not improbable that they

may act through the blood also. But their constant existence in this disease is denied and how great a share they may have as a cause of the disease is very uncertain. The disease is sometimes epidemic supposed by some to depend on peculiar conditions of the atmosphere. Others again think it may be propagated by contagion that it is infectious sometimes I think it admitted by all though perhaps very rarely. Inoculation with the secretions are said to have produced the disease and it would behove us to be careful not to use the instruments employed in diphtheria

in patients unaffected with the disease as the disease might be propagated in that way.

In the end to sum up all things said to produce diphtheria it would appear that there is no known poison capable of producing the disease but that it is generally brought on by any thing capable of lowering or deranging the vital powers of the system.

Diagnosis

The disease with which diphtheria is likely to be confounded are Croup, Ulcerated and malignant sorethroats. From the first it may generally be distinguished by the

membrane in diphtheria forming on the tonsils and fauces first while in croup it usually commences in the larynx, the swelling externally and the asthenic type of fever also serve to distinguish it from croup. Croup usually attacks children under ten years of age, diphtheria is not confined to any particular age and the uneasiness is referred to in swallowing. In croup the first symptoms are an alteration in voice and stridulous breathing. From the second it may usually be diagnosed by its not presenting the excavated surface of that disease though in some cases it will require exceeding care, and -

from the third or malignant by its not having the gangrenous sloughs of that variety. The appearance of these last two varieties of sore throat are sometimes presented in diphtheria after the false membrane is thrown off and a correct diagnosis is very difficult if not impossible

Prognosis.

The prognosis of diphtheria in the mild cases is generally favorable but in the more severe cases especially in those in which the exudation passes into the larynx very unfavorable. The depression of the powers of life in this disease are generally very great and when this extension take place the

patient is apt to sink from the prostration of the nervous system and insufficient aeration of the blood. In the worst cases very serious sequela are apt to follow such as paralysis in its different forms, more frequently local than general. The muscles of the face and pharynx are more frequently paralyzed than of any other parts. The paralysis is supposed to depend on the action of the poison on the nervous system. It usually yields to the nervine tonics, electricity, and astringents are also very useful.

Treatment.

As before stated diphtheria is a blood disease and must therefore be treated constitutionally.

The treatment of this disease has been very unsatisfactory and it is only comparatively of late that it has become any thing like settled. There are still those who recommend one plan of treatment and another a course directly antagonistic of the first. Thus — some say it is best treated antiphlogistically on the other hand there are those who say the stimulant plan is best suited to the disease. Now either plan persued to the exclusion of the other is very injudicious and dangerous, as what is beneficial in one case may be dangerous in another, therefore it would be best to treat the case according to the indications regardless of the use of other methods of treatment

If the fever partakes in the first stage of a sthenic type it may be necessary to apply a few leeches to the angle of the jaw. This by some is thought to be unnecessary, at all events the stimulant should not be employed. The diet should be mild, unstimulating and nutritious. When the fever is more of an asthenic type may and should be given to sustain the vital power under the prostrating influence of the poison. In the commencement of the treatment some recommend the use of an emetic, this is very seldom necessary and when it is, it should be one of the milder. A mild purgative is sometimes very useful in the beginning. If there is considerable heat about the throat, cold, and wet applic-

cations are sometimes very useful. It is some
times necessary especially in the later
stages to use warm fomentations which
may be rendered stimulant by the oil
of turpentine. Tonics and stimulants
will be required in the severe and more
malignant cases and should be com
menced as soon as the patient shows
any tendency to sinking. The tonics
recommended as among the best are
Tinc. Ferri Chloridi, Quinia, and Hydro
chloric Acid with stimulants such as
Buck tea, Wine, Wine Whey, Brandy,
and milk. But with the constitutional
treatment there is the local which if not
the more important is very necessary
and should not be neglected though

some authors say it is useless to treat a constitutional disease locally. I would not recommend that barbarous and cruel and not to say dangerous practice of using strong and powerful caustics which are almost sure to do harm and increase the danger of the patient, but some mild astringents solutions are very useful and even necessary. The removal of the false membranes by the forceps or other mechanical means is very injurious and does not prevent its forming again probably by increasing the irritation causes it to be formed again in a short time. In very mild cases the local treatment might possibly be all that is necessary. Unfortunately such

cases are very rare. As local applications various substances have been used with more or less advantage among the best are Nitrate of Silver which as before stated is also one of the best internal remedies. Solution of Nitrate of Silver, Tannin, or Tannic Acid, Carbolicum. Chloride of Soda, Chlorate of Potassa and other astringent applications. The chronic cases are very useful in corroding the tube of the discharge, and when the diseased action extends into the nares they are injected up the nostrils. The solutions of the various remedies mentioned should not be made too strong, the average strength of such solutions being for Nitrate of Silver 10 to 12 grs

to the quantity of water and of the
muriated Tincture of Iron from 20 to
30 drops to the ounce. These may be applied
to the diseased parts by means of a camels
hair pencils or they may be used as
gargles every 3 or 4 hours,
When the strength fails and the patient
is unable to swallow stimulating injec
tions should be injected up the rectum.
The paralysis should be treated with
Tonics such as Quinia, Iron, Strychnia
and electricity. When it becomes evi
dent that the patient cannot recover
unless the obstruction to respiration is
speedily removed the operation of
Tracheotomy should be performed.

1865

An

Inaugural Dissertation

On

Typhoid Fever

Submitted to the Examination

of the

Provost, Regents and Faculty of Physic

of the

University of Maryland

for the Degree of

Doctor of Medicine

by

Dennis C. Burch

of

Maryland

In order that I may become fully acquainted with the nature of this important and very interesting disease, I have selected it as the subject of my essay. Therefore, should I fail to do it the justice which it may demand from my hands, you will, I trust, pardon the futile efforts of the inexperienced student.

Typhoid fever is known by various names thus it is called Typhus mitior, nervous fever, Abdominal Typhus, Common Continued Fever, Entero-mesenteric Fever, Dothenenteritis, Follicular Enteritis &c. Its mode of invasion is not, by any means uniform. It sometimes begins abruptly with a chill followed by the usual symptoms of fever, but for the most part it generally comes on insidiously. Of one hundred and twelve cases says Chomel, seventy three were attacked suddenly and the remainder (thirty nine) laboured under precursory symptoms, yet nothing is to be gained in whatever manner it may occur, for the phenomena of invasion seem to be as intense in those

who were warned of its approach as in those who were not, viz. intense headache, alterations of the features, stupidity, muscular weakness, abdominal pains &c. When a patient labours under an attack of typhoid fever, his countenance is dejected and his spirits are much oppressed, he is uncomfortable — complains of general uneasiness and soreness of the limbs; the symptoms of this disease are very much the same as those of its allied disease — Typhus Fever. Yet, in tracing out the progress of the two diseases a distinction may be drawn which may serve to discriminate the one from the other. In the first place then, the hue of a patient in typhoid fever, is

brighter and of a more natural color.
in short his aspect and general con-
dition are less aggravated. Diarrhoea
is one of its most important charac-
teristics — appearing in nearly every
case. It is often an early symptom
but may be postponed to the commen-
cement of the second period. It is
frequently preceded or followed by
pain in the abdomen and differs as to
the number and character of the
matter voided, which is fœtid —
dark or yellow and has been com-
pared to the colour of pea-soup.
The abdomen is unnaturally hard with
a peculiar shape and if pressure be made
great uneasiness is manifested — particularly

in the cæcal region: in the first stage of this disease there is another symptom not commonly met with in other diseases which is a slight gurgling movement it is audible and palpable to the hand and may be felt by the patient rolling as it were from the right to the left side, and vice versa. This movement is owing to the combined effect of gas and the liquid contents of the bowels — passing from portion to portion — favoured by the peculiar condition of the ileo-cæcal valve. This is rare in typhus fever. The diarrhœa advances with the disease — the stools may pass in the bed involuntarily. At when they do they add greatly to the discomfort of the patient — increasing

his danger and causing troublesome sores wherever they come in contact with the skin. About this time the patient does not generally complain of pain but if pressure is made over the region of the caecum the facts will be revealed by the expression of the patients countenance that is he will give signs of soreness. The nature of the evacuations remain the same - thin and ochrey - and are within themselves an important characteristic of the typhoid type. When these stools continue day after day we may properly conclude that the bowels are in a state of ulceration though there may be no pain present with or without pressure; and this

conclusion will be confirmed when hemorrhage from the bowels occurs which generally takes place during this stage of the fever: this is often a bad sign and injurious by the exhaustion it produces it sometimes comes on unexpectedly, and demands strict attention on the part of the attendants: the appearance of the blood changes - sometimes red and at others blackish. The bleeding is due probably to the ulcerative process - causing a division of some of the mesenteric veins. though this is not necessary he case, occasionally bleeding takes place from other mucous surfaces, in connexion with other putrid symptoms petechiae, purple spots and great depression of

the vital power this kind of hemorrhage is considered passive. And is an indication of the worst omen. The character of the eruption is another distinction mark between typhoid and typhus fever: that of the latter is of small reddish spots, in size from little specks to that of an eighth, a quarter and even to half an inch, but for the most part they are very minute and occupy no particular portion of the body, sometimes the whole surface is covered by them — showing much the appearance of measles, the eruption, as mostly seen, is not elevated, nor does it assume any one constant hue, sometimes it is red, purplish and violet then again it is almost black.

but in the earlier stages it is bright and begins to darken as the disease advances: the spots will sometimes disappear slowly under the pressure of the finger. And when they assume the dark-purplish appearance, the pressure will have no effect upon them — being true petechiae — these spots are few in number and cases are recorded in which they were entirely absent: they make their appearance generally from the fifth to the eighth day and last about the twelfth day. Generally they disappear several days previous to the commencement of convalescence. This eruption has been termed the mulberry-rash. And has been seen upon the surface of

the dead body when death took place before the time of disappearance.

The eruption peculiar to the fever in question, Typhoid consists of small circular spots of a bright rose colour, are slightly elevated with round heads which never become vesicular. Ipso petechiae: when pressure is made they fade away and return when it is taken off. The number present at one time varies from one to one hundred but generally from six to twenty are seen each papula lasts about three days when others follow. During the second week — from the seventh to the ninth day — these spots begin to show themselves upon the abdomen sometimes upon the chest &c and new spots

dry tongue with red tip and edges, smooth furred, of a pale brownish yellow, and fissured, the surface seen between the fissures being of a deep red - may be considered differentially as a diagnostic sign of typhoid fever. The same observer found that the average duration of the fatal cases in typhoid fever was twenty two days - of typhus fever fourteen days. The greater proportion of cases of typhoid survived the twentieth day of the disease - not one case of typhus fever survived the twentieth day. Death in typhus fever occurs in the way of coma sometimes there is a compound of coma and asthenia in which the former takes the lead.

Death in protracted cases of typhoid
takes place generally in the way of
asthenia. In some instances it occurs
from mere debility of the heart — the
pulse is small, weak and fluttering;
respiration is more and more em-
barrassed: the urine has an unnatu-
ral, disagreeable smell. The patient
lies on his back and sinks down
in the bed: the skin becomes cold
and clammy, and the countenance has
that peculiar expression which is desig-
nated — facies hippocratica. In this
condition death concludes the scene
when death from continued fever occurs
in the way of coma and apnoea you
will very generally find morbid condition

existing within the head and chest.
and when it takes place in the very
chiefly by asthenia the morbid con-
ditions are found - not as before - but
within the abdomen. In this very inter-
esting disease past mortem examinations
have discovered and pointed out the
anatomical lesions which are said by
the Ablest Pathologists of the day
to show that the two diseases (typhoid
and typhus) are as distinct the one
from the other as small pox is
from scarlet fever. In nearly every
organ of the body some traces of in-
flamation more or less has been
found after death from typhoid
fever. The whole mucous membrane

of the intestinal canal is scattered.
Ever with little glands or follicles
which are named solitary glands;
the exact function of which is not
as yet understood. And in the ileum
we also meet with other little glands
or follicles in groups; these are called
glandulae agminatae — or better known
as Peyer's glands. They are found most
numerous and larger at the lower
end of the ileum, and also upon the
ileo-cacal valve, but beyond that they
are not to be seen; going from the
caecum in the direction of the jejunum
these groups are less numerous and
smaller; in fact they change in every
way till they are seen no more. These

patches may be seen in the tubule.
communicated also. Should a patient
ever die from this fever (typhoid), let
the examination be carefully made.
These glands (solitary and agminate)
will have undergone a marked alter-
ation, which alteration having been
clearly proven to be the chief and
distinctive characteristic, being
from the natural condition of these
glands agminate. The first step
is an enlargement and elevated two
or three lines above the surrounding
mucous membrane, their size varies -
sometimes some are from two to three
inches long, but half an inch or more
in breadth. They have in general -

smooth regular and clearly defined edges. then they present a grayish transparent surface with numerous small black dots these black dots (says Watson). are the excretory mouths of the several follicles, though continues he, they are not necessarily associated with disease - they have been compared to the newly shaven beard. The patches become reddish as the inflamation advances and the follicles burst, ulcerate or slough away by piecemeal - leaving generally an irregular ragged ulcer with thickened edges, the patch sometimes presents the appearance of a fungous swelling - puffed and loosing

its follicular structure the colour is not the same at all times thus it may be gray, pale or red. sometimes it is yellow. The solitary glands are usually affected in the same manner as those of Dyer; first they are large hard and are distinctly visible with a whitish coloured projection from the surface. in course of time a wasting away of these glands takes place - commencing at the summit of each - producing a small and sometimes a deep ulcer. near the caecal valve a greater number of ulcers will be found. as more glands are there and they are more advanced and more extensive in that

region. During this stage, and as the examination is proceeded with the mesenteric glands will be found as constantly diseased as those of the mucous membrane which Dr Watson seems to think is nothing more than a sympathetic relation with the ulcerated condition of the latter membrane. He therefore regards the inflammation of the mesenteric glands as secondary. And says they bear the same relation to the ulcers seen in the bowel as a bubo in the groin, bears to a chancre on the glans penis. In typhoid fever, the abnormal condition of these glands tells us the cause of what is going on within. Thus, they account

for the diarrhoea — the hemorrhage from the bowels and they account for the pain which the patient feels when his abdomen is pressed. Though ulceration may be going on and this last sign (pain) may be entirely absent, yet this can be accounted for the stupor may have reached such a degree as to have rendered the patient insensible to any kind of pressure or it may be owing to the depth to which the ulceration has gone. Pain upon pressure is very seldom felt to any extent except when the ulceration involves the muscular and peritoneal coats as an illustration of the fact that ulceration

may be going on without any symp-
toms or signs of pain. Dr Watson
relates a very interesting case of a
young female whom he once attended
when stricken down by this terrible
disease. One day he learned that she
had been attacked by hemorrhage
from the uterus her attendants
thought; but says he, when I saw the
discharge, I was made certain by its
appearance and colour that it had
come from the bowels and I stated
my conviction that there was ulce-
ration of the lower portion of the
ileum. But she had no pain in the
abdomen. You might press any part
of it without exciting the smallest

uneasiness. The uterus was examined (per vaginam) at the same time, but nothing wrong was found. Some short time afterwards the hemorrhage returned the practitioner was sent for, but before he reached the house she was dead. The next day he opened the body, the uterus was found perfectly natural so was the vagina also. At the ileum about a foot above its entrance into the caecum was in a state of ragged ulceration red and besmeared with blood.

The office of the glandulae agminatae is shown by Dr Carpenter to eliminate decomposing and obnoxious matters from the blood.

and to discharge them into the inter-
tinal canal. And Dr. C. B. Williams
say that the ulceration so constant-
ly met with of those glands in
typhoid fever may result from
the continued operation of the
poison of that disease - thus escaping -
Now when these ulcers occur it is
not necessary that they should be
fatal, but when they are fatal,
they may prove so in different ways.
Thus death may be occasioned by
the exhausting diarrhoea in the way
of asthenia or the opening of a
mesenteric blood vessel - causing hem-
orrhage and mortal syncope. And
the patient is often destroyed by per-

foration of the bowel thereby throwing its contents into the peritoneal sac and lighting up acute peritonitis. However the ulcers may often heal. And their scars are frequently seen with a new mucous membrane which is thin and adherent to the subjacent tissue and does not slide over them like the healthy portions of the neighbouring parts. The presence of these ulcers has a tendency to prolong the illness of the patient even after the fever has ended they protract his ~~illness~~ convalescence, delay his recovery and endanger his life. Besides ulceration of the bowels there are yet other lesions to

be noticed in minor points of dif-
ference in the two diseases. In typhoid
fever the pia-mater and arachnoid
are seldom found separated from
the convolutions of the brain which
is common in typhus, and in one
third of Dr Denner's fatal cases
of typhoid there was ulceration
of the pharynx — in not one case
of typhus was this seen. The spleen
in these two forms of fever is more
or less changed in size and tex-
ture, sometimes it is four or five
times its natural size — of a dark
and almost rotten consistence. In
speaking of typhoid it may be well
to remark here that the liver kidneys

urinary passages gall-bladder the
heart oesophagus and respiratory
organs may in some manner be
involved.

Causes of typhoid fever
are obscure, though it is often gen-
erated in small and crowded
houses - unwholesome food and foul
air badly ventilated hospitals &c.
It is thought by many to be conta-
gious, but the weight of opinion
seems to be in opposition to that
point, yet it may prove contagious
under certain circumstances. Typhus
fever is admitted to be contagious.
Typhoid generally attacks ages about
20 or 30 years while typhus spares no

the physician it is yet, in general, not a very fatal disease. It is however more dangerous in hospital than in private practice. No case should be given up, no matter how bad the chances for recovery may seem. The most unfavorable symptoms are complete delirium. The patient says there is nothing the matter with him profound coma, picking at the bed clothes, stertorous respiration, subsultus tendinum, excessive diarrhoea, hemorrhage from the bowels, involuntary discharges, pulse to 130 and upwards, cold clammy skin &c. The favourable signs are just the opposite if the patient has

[illegible] ose, and during convalescence. It is of great importance to caution the patient against an improper diet and fatigue. The debilitated condition remaining should be treated with quinine &c.

[illegible] 13 [illegible] 1865

[illegible]

1865 S. F. Balch

To the Provost, Regents & Faculty of
The University of Maryland

Gentlemen

The subject of Labor, which I herewith present for your consideration is one in which all mankind have an interest.

Labor consists of three divisions first, natural second preternatural and thirdly instrumental. Labor is also divided into three stages; in the first we recognise that time which ensues from the commencement of pains until the dilatation of the os uteri and discharge of the amniotic liquid the second from the discharge of the liquor amnii until the birth of the neonatus; & in the third we recognise

that time which elapses from the birth of the foetus until the expulsion of the placenta

Some collateral circumstances take place during these periods which it will be proper here to notice; as I shall first speak of natural then preternatural & finally instrumental labor in the order just being down.

A few days or it may be a few hours before labor actually sets in, the rotundity of the epigastrium is perceptibly less, the child if previously close fitting becoming looser round the waist; there is a muco-sanguineous discharge from the vagina commonly denominated show; there are pains coming and going from the back around the loins down into the vagina & thighs and

the woman will express more or less anxiety by knowing in the language of scripture that her hour is come, yet to carry the language of inspiration further when the child is born "she remembers no more her sorrow for joy that a man child is born into the world," and I may truly say in confirmation of this, that I have often been surprised how soon she forgets, when the labor is over the anguish which she previously suffered.

Were I to consider all the phenomena concerning the Mother and child in labor I should extend this article to a much greater length than perhaps would be altogether agreeable to the able gentlemen who may peruse it: I

shall therefore endeavor to be as brief as possible. To the signs already enumerated of approaching labor we may discover by placing the hand on the lower abdomen an alternate contraction & hardening of the uterine globe; and if we wish to be still more certain we examine per vaginam; when by the touch we discover the os dilating gradually, & the membranes alternately protruding and receding. This we call taking a pain. With the anxiety of mind which the woman suffers & which sometimes amounts to trembling shuddering & even chattering of the teeth usually she is not apt to complain even then of cold; we will also often see a frequency of micturition manifest & sometimes a desire to go to stool; these

efforts should be encouraged and if necessary the catheter be passed & an enema be given.

As the labor progresses the pains which at first may have been an hour or more apart now recur more frequently generally every 15 or 20 minutes & the patient will lay hold of something and pull on it; generally a towel being tied to the bedpost in front of her for that purpose, & when she does this you may know that the expulsive action of the uterus has set in; whilst before this the pains were grinding or dilating.

If you make an examination now you will find the os nearly or fully dilated; the membranes begin to descend into the vagina, dilating the os still further as they descend, they finally

burst, the amniotic liquid escapes with a gush, & there is now usually a longer interval between the pains.

If you introduce your finger now in the vagina you will find instead of a soft tumor as before caused by the liquor amnii distending the membranes a large round hard substance which you recognise as the head of the child.

The pains now come on again, the patient becomes boisterous & pulls hard bearing down with all her force, her pulse now is rapid, but skin not to a degree of impatience is manifested by her until the head descending comes to & against the symphysis pubis & perineum when a still stronger pain expels it, & the vertex passes out under the arch of the pubis which it commands the case, you will

such that the face will turn to the right thigh of the mother; this is on account of the rotation of the shoulders within the pelvis which occupy the greater width thereby of the lower strait which is from sacrum to pubis. You should examine at this junction to see if the umbilical cord is around the childs so as to slip it over the back of the head if it is, otherwise the child may become asphyxiated before the trunk is born.

The child being born the woman gets comparatively easy; in about ten or twenty minutes pains by a violent recur; and on examination you will find the placenta forced into the vagina & this being removed the labor is over.

Now I writing this subject is

a tyro in the art of midwifery, I should have promised it with an account of the structure of the pelvis, the variety of ways in which the child may present and a dissertation on the power by which the meconium is expelled from the uterus,' but as I design this thesis chiefly for the inspection of our accomplished professor of obstetrics, whose interesting lectures I have so often heard the privilege of hearing I will not tire him with a repetition of what he has been obliged to go over so frequently to the class & proceed to the second division of my subject, but before doing so will make a few remarks upon the conduct of the accouchement.

That wonderful old man Jean says "la présence d'attouchement, ou

les parolles d'un homme très-eminent par son caractère moral, ou par la sublimité de son esprit ou par l'opinion de sa dignité influent singulièrement sur les ames inferieures et sont capables de guerir les corps." (L'art de perfect. Homme. ii, 22.)

Not only should he be moral, but he should feel competent to conduct a labor when preternatural; when he enters a lying in room, for we do not know at what moment a natural labor may be rendered preternatural and the courage & endurance of the accoucheur may be tried to the utmost, a moral and conscientious man feels the responsibility, whilst others manifest their indifference by getting drunk or displaying ignorance, or want of judgment, and thus bring discredit on our

(Copy) Philadelphia May 22nd 51

Dr Sir

In reply to your favor of 5th inst, I have to state that the Pennsylvania Hospital does not admit of such cases as that described by you in your letter, except as pay patients. I believe they receive poor pay patients for three dollars a week but do not know that the fees have not been raised of late

Such persons are always expected to present some security or bonds man for the regular payment of the dues & for extra costs that might accrue

On perusing your statement I was led to suppose the unfortunate gentleman to be now incurable, for I cannot avoid the conviction that he has had extravasation with emollescence of some portion of the brain

& I cannot advise his friends to send him to the Pennsylvania Hospital.

It seems to me probable that you are doing for him all that is needful or possible & therefore he ought not to be put to great charges & weary journey, in the vain hope & finding a cure where no cure can be.

I hope I can truly join in with you in sympathy for the unfortunate minister & heartily wish, more than hope, it may please his Master to restore him.

I am sir with much respect your servant

Ch. L. Mitchell

Dr Balch

noble art. It requires no little courage & judgment to stay with a woman in preternatural labor to give her strength & comfort in her agony & conduct her safely through her hour of trial, all officious and timid persons should be excluded from the room and none admitted but those who can render efficient assistance. Some woman who has been through half a dozen light labors herself and can tell tramping stories respecting them will be useful society at this time.

Labor may be rendered difficult from various causes. A plurality of children may occasion it, where there are only twins, we as soon as the first is born which during its birth we must be careful not to allow to become locked or impacted as it is termed with the

other, we I say must introduce the hand & examine whether the placenta of the first is thrown off or if there be two placentas or but one. We must there if the uterus does not act in the course of half an hour proceed to excite its action in like manner with the finger

Labor may be rendered difficult by pain or preternatural, by pressure on the nerves (generally the sacro sciatic) within the pelvis by the fetal head causing partial paralysis of it. power, & in relation to paralysis I observed a letter (copy of) received by me from Professor C. D. Meigs some years ago.

Labor may be rendered difficult or preternatural from rigidity of the perineum causing continued distention of the head unless remedied by the midwife. I met with a melancholy instance of this, in the case of a young lady, who being attended

11.

by an ignorant woman was actually pulled apart by her to allow room as she said for the child to pass when in all probability had they have sent for me at once I could have delivered her with my forceps without any trouble; the rent extended from the fourchette to rectum & when I saw her the uterus had prolapsed appearing at the vulva, while the bowels could be seen lying posterior to it.

Now had this happened with one of us, we would not have heard the last of it shortly, as it was, instead of being punished the same creature was called to another case, I believe shortly after."

Should rigidity of the os or perineum be persistent involving the constitutional powers of the woman we must resort to venesection or other appropriate remedies

convulsions may render the labor preternatural; in sanguineous women, the man in his hand but his early is alone worthy of confidence; the first case I attended of this kind was a little woman whom I had bled a few days previous thinking she had the premonitory symptoms of convulsions the labor had progressed slowly for nearly a day, when complaining of headache, I again bled her some 13 ounces, I had hardly tied up her arm when she was seized with a terrific convulsion, I immediately opened another vein & with my finger on the pulse I allowed the blood to flow until the pulse fluttered & her color changed, I then tied up the arm, the vein which was cut gave of blood holding some 40 or 50 ounces was removed, and the labor proceeded without any other accident to a close, about

er woman, who was attended by several practitioners of my acquaintance was by them bled sparingly from time to time for the same complaint & died.

In delicate women where it is not desirable to take blood, it will be well to resort to haemastasis & perhaps anesthaesia, & subsequently antiperiods as assafoetida quinine &c.

Labor may be rendered preternatural by hemorrhage, where the placenta is adherent, where it is implanted over the os uteri previous to delivery, called by the old writers unavoidable hemmorhage or, where it is thrown off from the uterus after the birth of the foetus, constituting post partum hemorhage.

The best way of treating adhesion & post partum hemorhage is I think by

the fluid extract of Ergot, Cunicifuga & Senecio Gracilis combined which has always succeeded in causing an easy yet permanent uterine contraction as far as I have used it, Tilden & co's preparation's are perhaps as reliable as any.

I do not altogether like the action of the Ergot alone, as instances have occurred where after the uterine action has been set up by it, it has died away after the action of the drug has ceased and the hemmorhage has been renewed and another objection I have to it is the fact of the spasmodic action which it sometimes causes & which is difficult to allay.

Labor may be complicated from uterine obliquity; the os tincae becoming adhesions from pressure; this is remedied from the finger, by hooking it

in the os, and drawing it in the axis of the pelvis.

When labor is complicated by placenta previa if the woman is constitutionally affected by the hemmorhage we must tamphir the vagina or use the colpeurynter, until full dilation of the Os takes place & the expulsive pains set in when we proceed to deliver.

We come now to consider the third division of labor which we call instrumental & in this, departing from the usual arrangement of the writers I will with permission include manual interference by version.

In speaking of natural labor I said that the head descended first followed by the rest of the

body. but some other part may present as the foot, an arm, or the breech or the face. The head when these are living may become impacted, or locked with the other & we have to interfere. by pushing up the heads & endeavoring to separate them; & if we do not succeed in this we are obliged to decapitate the lower child in order to save the upper one. So with the umbilical cord should it present we must return it. When an arm presents we must return it & bring down one foot if we cannot both & perform version thereby.

In consequence of the deformity of the pelvis whether rachitical or osteitical we have to resort to the forceps where the pelvis will clear

3/8 inches in its antero-posterior diameter, but where this is less than 3/8 inches we must resort to embryulcia or the cæsarean section as may be most appropriate in the circumstances of the case. The sigaultian operation is unworthy of consideration.

In applying the forceps one blade should be passed up over the ear having previously ascertained by examination where that is, & then the other blade exactly opposite, you can then lock them & proceed to extract; but sometimes we may not succeed in adjusting the forceps, when it may be well to employ the vectis.

In regard to the use of the forceps how are you to ascertain whether the head is not too large to be delivered

in that way." as in cases of monstros-
ity &c,. I have read Meigs, Ramsbotham, Dewees, Gooch, Velpeau
Churchill, Gaskam, & other authors
yet I see no answer to this question
nor do I know of any myself inas
much as I know of no accurate way
of measuring the movements within the
pelvis, as good a plan as I can devise
of meeting this difficulty would be to
Endeavor to extract with the forceps "and after a
fair and moderate effort resort to
Embryulcia, or should the desire of the
parents be such the caesarean section.

As regards Embryotomy there can
be no doubt of its propriety, where the
antero-posterior diameter of the inferior
strait has been found to be less than
3/8 inches, but before proceeding to that

extremity I think it would be proper to inform the woman and her friends of the necessity for operation, and - should she & they prefer, after being made acquainted with the nature of the two different operations, the caserean section to embryotomy, we may resort to the former providing by means of auscultation we ascertain the child to be still living.

Should the pelvis be too deformed to deliver by embryulcia, we will have to resort to this measure, which if properly performed & in time is not so dangerous as one would suppose, in fact less so - I think than waiting for the decomposition of the child.

Stephen F. Burch.

20.

1865 Boskery O J

An

Inaugural Dissertation

on

"Pyæmia".

Submitted to the Examination of the

Provost, Regents and Faculty

of Physic,

of the University of Maryland.

For the degree of

Doctor of Medicine;

by

Oscar J. Boskery

of Maryland.

Dedicated

to my father;

Dr. F. S. Coskery.

Feby 14th 1865

Pyæmia or Choræmia.

The name of this disease would indicate an alteration in the blood caused by the presence of pus. That it is so, is by no means proven.

The Symptoms in traumatic cases, are these: (A case of idiopathic Pyæmia I have never seen.)

Viz: The patient may be seemingly progressing rapidly towards recovery, when he will inform you that he has had a rigor, and he may or may not have a sweat; his pulse will be about 90 or 100, tongue covered with a white creamy fur, some sickness at stomach, or pain in that region, his appetite is not materially affected. In the succeeding 24 hours, great changes generally take place. The patient will be in a high state of fever, pulse rather full, more rapid than before, 100 or 110, tongue quite dry, lips colorless, excretions scanty, and you will be informed by his attendants that he is disposed to sleep, although he appears bright Enough when spoken to, appetite

almosty if not completly gone - On the following day he is still more inclined to sleep, pulse about same but somewhat thready, tongue & teeth coated with sordes, almost total suppression of secretions, and the patient in a complete state of apathy. On the fourth day, this will have gradually settled into complete coma, and in this condition, he will die on the fifth day. Generally, from the ushering chills. The comatose condition is marked by a very peculiar phenomenon that I have never seen mentioned by any author; it is, that the patient will start up suddenly, and gaze around him with a perfectly sensible look, but almost immediately relapse into the state from which he came.

The Post-mortem appearances disclosed after death, are generally confined to metastatic abscesses in lungs, liver, joints &c & sometimes there are appearances of inflammation of the blood-vessels -

I will now proceed to state the different opinions of different authors -

Dr Todd, (in his lectures on acute Diseases) defines Pyæmia, "to belong to a class of diseases, which, though originating under various circumstances and differing in the severity of their general symptoms, in the Extent and situation of the local phenomena which usually characterize them, and in their duration and ultimate termination, are nevertheless alike in their essential nature. This consists in a poisoning of the blood, by an admixture with it of purulent matter - (1) either pus Entire, and in its purest form, taken into the circulation by an open vessel, or generated in some part of the vascular system; (2) or unhealthy pus - decomposing, acrid, septic, received in a similar manner; (3) or some of the amorphous Elements of such pus, received by absorption into the vessels; (4) or some other animal matter, allied perhaps to pus, the product of disease during life, or of decomposition after death; (5) or lastly, a peculiar animal poison derived from the recently dead human body, or that of some other animal.

To the idea here advanced by Dr Todd, and by so many before him, that it is "the absorption of

pus entire," it need only be necessary to point to the microscopic researches to disprove the assertion. Dr. Hughes Bennett in his "Practice of medicine" gives a case of Pyæmia, following Rheumatism, in which he expressly says "blood carefully examined and everywhere found normal". Now if pus had been there, certainly such an accurate observer as Dr. Bennett could not have missed seeing it. And indeed I can find no author, who declares confidently that he has discovered pus corpuscles in the blood.

2. The same objections may be urged in reference to the second theory, or "the admixture of unhealthy pus."

3. As to the third, "that it may be from the Amorphous elements of such pus, reabsorbed," there appears more plausibility, for three reasons;

(a) We know that pyæmia never occurs without the appearance of collections of pus.

(b) We have seen that it occurs without the pus-corpuscles being found in the blood.

(c) Healthy pus may be injected into the veins, in considerable quantity, without producing the symptoms of pyæmia.

4th This would ascribe it to "some other animal poison, closely allied to pus". This is simply a miserable Excuse for ignorance - prudently assuming the cloak of wisdom.

5th The fifth would have it as the result "of a peculiar animal poison, derived from a recently dead human body, or that of some other animal." This would certainly give rise to that train of symptoms of misery, put down in surgeries, as, "Dissecting wounds" not by Arms -

Dr. Watson (Practice of Physic p 794) says;

It had long been noticed that collections of pus were not uncommon in various parts of the body, when death had followed mechanical injuries, or great surgical operations - Abscesses of the liver, in particular, were known to be associated with mortal fractures of the skull - Very fanciful reasons were assigned for this Coincidence - By degrees it was ascertained that these scattered collections of matter, occurring most commonly in the lungs and liver, but not unfrequently in or near the joints also, in the serous cavities, among the muscles, in the brain, in the eye, and elsewhere — were connected with

the introduction of some vitiating secretions, and especially of pus, into the circulation of the venous blood".

Dr. Watson then goes on to express his views, which are, "that these abscesses of, as well as in, a part, proceed from suppurative inflammation provoked by the presence of pus, brought thither with the circulating blood".

He also takes the ground, that "these particles are stopped in the capillary networks of the viscera", and again "that viscus at which the blood first arrives". Now the learned doctor gives as an instance, that abscesses form in the liver, after injuries of the stull. If the theory is right, then why is not the offending substance caught in the lungs, for surely the blood goes to them, before it can get to the liver. Certainly the eccentric Doctor, has used his own arguments against himself. He would wish us believe, that one set of capillaries, the pulmonary, did not perform their functions in as efficient a manner as another, the hepatic, the Experiments of Cruveilhier, to which Dr. Watson alludes in support of his theory, do not prove much,

for surely mercury, and pus do not possess the same characteristics, for instance take a large suppurating surface, and apply to it a thin coating of mercury, crude; take another, and watch it in its progress towards cure, will you not always find it bathed in pus. Now what is the difference of the two applications.

Dr Wells, of New Haven, (whose opinion I consider doubly valuable, on account of the Experience & ability of the author) considers Syphilis a condition rather than a disease. He is by no means satisfied, that the absorption of pus is the proximate cause of this condition, and believes it to be occasioned by the individual peculiarities of the patient; that it is almost without exception preceded by some infection or contagion, something vitiating the atmosphere, as Typhoid fever, the Exanthematous fevers, Hospital Gangrene &c and concludes with these words; "The fact that it occurs Endemically, is a proof that it is a specific disease, and not dependent upon the accidental absorption of pus." The Dr has seen two Endimics himself, at "La Clinique" in Paris. Now this is certainly conclusive, that it is

not the absorption of pus.

D. Brower of Philada. believes "Pyæmia a blood poisoning, following injuries"(1); but not the absorption of gas or pus; depending upon a vitiated condition of the atmosphere the patient breathes;(2) or upon a depraved state of the constitution,(3) and as a diseased condition, over which remedies have no control.(4)

1 We know that pyæmia can be idiopathic, so it is not necessarily the consequence of injuries. 2 & 3 To this it may be added; cannot a man in robust health, seemingly laboring under nothing but the injury in question, and also in a highly healthy atmosphere, still have pyæmia?

4 Remedies certainly have more or less control over this disease for there are several cases of recovery recorded, as for instance, in the London Lancet for Sept 1859 one of a patient in Guys Hospital, and also two cases reported by D. Todd; but in justice to D. Brower, I must say, that, I have never seen a case of traumatic Pyæmia, recorded cured.

7 Virchow, (Cellular Pathology, concludes his

very able article on Pyæmia thus: "Upon examining these different pathological processes one by one, it is really impossible to discover anything at all, which in a morphological point of view, comes even in a remote degree justify the assumption of a condition such as might be called pyæmia. In the extremely rare cases, in which pus breaks into veins, purulent ingredients may, without doubt be conveyed into the blood, but in such instances the introduction of pus occurs but once. The abscess Empties itself, and if it be large, an extravasation of blood is more apt to ensue than the establishment of a persistent pyæmia. Perhaps we shall at some future time, succeed in the course of such a process, in discovering pus corpuscles with well defined characters in the blood; at present however the matter stands thus, that it can most positively be maintained, that nobody has hitherto succeeded in demonstrating, by arguments capable of supporting even the feeblest criticism, the existence of morbological pyæmia. This name must therefore, as designating a definite change in the blood, be entirely abandoned."

such an opinion, from such an author, would seem to me conclusive on the subject.

The same author believes that, "Leucocytosis is often mistaken for pyæmia" and declares it, (Leucocytosis) to be the effect of the irritation of some of the glandular bodies.

After reading the various opinions of all these different authors on this subject, it is difficult to make ones mind on anything, in reference to Pyæmia, except that the ground that has been held so long, by most writers, has been the wrong one, "that pyæmia is the result of the absorption of pus," as has been proven by the authorities quoted.

Some authors, and Dr Watson is among them, have advanced as proof of the absorption theory, the presence of the metastatic abscess in different parts of the visceral cavities, and give as a theory for these deposits, that the pus-corpuscle, are larger than the blood-corpuscle, and therefore, not being able to circulate where the blood does, are caught in the capillary network. Now, Dr Hughes Bennett defies any one

to see the difference, between the pus-corpuscles, and the white or lymph-corpuscles of the blood, and if there is no difference, who will dare to say, that to these spots only red-corpuscles arrive, and that the white-corpuscles, considering this as holy ground, stop on the threshold. To account for these abscesses is one of the impossibilities, and indeed I can not see the absolut necessity for doing so; for who will pretend to give the reason, for Rheumatism attacking the fibrous tissues, or Typhoid Fever the patches of Peyer, both blood poisons, and surely both of as much importance, as the former. Moreover Dr. Gerhard in "Disease of the Chest" p. 125 in speaking of the different terminations of Chronic Pleurisy, says; There is another way by which Chronic Pleurisy may terminate fatally – that is by producing metastatic abscesses, in parenchymatous organs, as the lungs and liver; this result is, however, not at all common". showing that pyæmia, is not the only disease in which these may form.

Dr. Wood, considers pyæmia a Zymotic affection. And indeed why is it not a Zymotic disease? We have the symptoms of Typhoid fever, more or less

developed, and can also never find any morbid appearances of the blood; indeed most of the English writers on pyæmia, consider the typhoid symptoms, as a "sine qua non", but as far as individual Experience goes, I have never been unable to draw a distinct line between the two diseases.

I consider pyæmia, a peculiar, and specific disease of the blood, dependent upon a vitiated condition of the patient's system, and closely allied to the class of Zymotic diseases. That it depends upon a peculiar dyscrasia, I think somewhat proven, by the fact, that while some men may have an immense suppurating surface without any bad symptoms whatever, another may die from as simple abrasion of the skin, as has been related to me by Dr Wells, or from the amputation of a metacarpal bone as occurred in my own practice. In Phlebitis there an deposite of pus in the veins, the effects of the inflammation. Now no one can say that in this case, the veins cease to perform their functions, and surely if they do not, this pus must be carried

into the circulation, and still the symptoms are so entirely different in the two diseases, that there is no difficulty whatever in diagnosis. I think with Virchow, that pyæmia is often confounded with Leucocythæmia.

In the diagnosis of pyæmia we need never have much difficulty - for the only diseases it can be confounded with, would be Phlebitis or Typhoid fever, or sometimes with the effects of an overdose of Opium. From Phlebitis it can be distinguished by the absence of the icteroid hue, so characteristic of that malady. From Typhoid Fever by the history of the case + by the fact of the presence of collections of pus.

As for the Prognosis, I consider it always extremely unfavorable, and indeed I have never been able to discover a case of traumatic pyæmia, (as Cundy) reported.

It is a most difficult matter to advise any course of treatment. I know of nothing better than Tonics, Stimulants &c, with an occasional alterative, in order to assist nature, to throw off the morbid Element. Blisters might be of benefit

applied to the back of the neck. I have seen them advised, but have not much faith in them, or in the Iodide of Potash, which has lately been prescribed as an Eliminant. I should rely more on the stimulant plan, from the commencements, than any other.

In offering these my views, I hope I shall be excused, if I have advanced any thing inconsistent with known facts, on the ground, of my ignorance of pathology, and total inability to give to this intricate subject, the time and attention it so richly merits - But what I have said, deserves consideration on account of its entire originality, and also, because it is the result of direct observation and experience. To Dr Wells of New Haven, & Dr Brown of Phila, I must return my thanks, for the kindness I have universally received at their hands, and also, for the valuable knowledge, of which I have made such poor use, that I have gained from their valuable teachings. Their kindness and attention I shall ever remember, and trusting that the leniency with which my many faults have been treated by them, may be as kindly handled by the able

faculty of Physics — University of Maryland —
I herewith submit this my "Thesis".

1865 Robinson G.L.

An

Inaugural Dissertation

on

Diphtheria,

submitted to

The Provost, Regents, & Faculty of Physic

of the

University of Maryland

for the degree of

Doctor in Medicine

by

George. L. Robinson.

Diphtheria,

is a constitutional affection, characterized by the formation of an adplastic membranous exudation upon any portion of the cutaneous surface, when denuded of its cuticle, or mucous surface, which is exposed to the contact of the atmosphere, but which, usually, first displays itself upon the mucous membrane of the tonsils and immediately adjacent parts.

Symptoms, Course, &c.

Diphtheria, like all other epidemics, is extremely varied in its mode of attack. Sometimes the symptoms which are characteristic of the disease are decided from the very first; again, the approach is insidious, & it is only by degrees and slowly that the true nature of the disease declares itself; and, still again, the strength of the system seems to give way immediately, and the patient sinks beneath the force of the attack, without

allowing time for the display of the usual symptoms. But commonly the attack comes on with a slight chill followed by fever which, in severe cases, is only transient, and speedily gives place to depression. The glands of the neck, and at the angle of the jaw become swollen and tender, and often there is stiff neck; at the same time a tickling, pricking, or tingling sensation is often felt in the tonsils, they become enlarged & congested, and their mucous surface together with that of the adjacent parts looks red, angry, & more or less inflamed. At the end of the second or third day the characteristic exudation appears upon and around the tonsils, at first as specks, patches, or a continuous covering of the fauces like a thin pellicle, varying in color from white to a very dark hue, which extends and gradually thickens, sometimes becoming as firm

as wet leather. This exudation is commonly
d to the fauces, but may extend upwards until
it has covered the inside of the mouth & gums,
and even up into the nasal passages, closing
them completely, or downwards into the oesoph-
agus, larynx, trachea, and bronchi, having
been found as low down as the third or fourth
division. This membrane is a true
exudation, which has coagulated upon the
mucous surface, from which it may be seperated
leaving the subjacent surface red, tender, and
exceedingly vascular, bleeding at the slightest touch;
sometimes the membrane is seperated by a secretion
partly purulent, and partly mucous, which forces
it off entire; but when removed in either way it
is rapidly formed again, and unless checked, increases
in thickness and density. Occasionally
sloughing takes place beneath this exudation,
or even more deeply, as in the centre of a tonsil,

and may implicate the tonsils, uvula, and soft palate; and when this occurs the results are always unfortunate. The exudation is not always confined to the throat, and adjacent parts, but is frequently found on the labia, vagina, conjunctiva, and any ulcers or abrasions that may happen to be present, showing conclusively that the blood is in fault, and that it is not simply a local affection. The most formidable variety of the disease is that in which the larynx and trachea are invaded, scarcely one in ten recovering when the exudation extends thus far. The symptoms are similar to those of croup - the cough sounding exactly like that met with in croup - the voice being changed and raucous, and the breathing stridulous, which at last is so much impeded that the proper aeration of the blood can not be accomplished

the lips and nails become blue, or there may even be a general cyanotic condition, and the patient dies from asphyxia.

The Pulse varies remarkably in this disease, often, if the invasion is decided, it is at first as high as 120 or 140; in some cases it continues rapid; in some it suddenly falls to 56, 50 or even to 40, and remains there; in others it is rapid, interrupted or irregular in all respects, the last condition being an extremely unfavorable symptom.

The Urine also presents a peculiar & abnormal condition, as Albuminuria commonly accompanies diphtheria, usually commencing within a few hours, and gradually disappearing pari passu with the local affection. The initiatory symptoms have no definite relation to the violence of the disease, but the severity is usually in proportion to the continuity and density

of the exudation – although sometimes the severest symptoms are very alarming, when the exudation is inconsiderable. There are various complications of the disease, which increase the danger & liability to a fatal issue, and among the signs which indicate great danger we may enumerate – croupy symptoms; the recurrence of pneumonia, or bronchitis; a brown or blackish appearance of the false membrane; hemorrhage from the nose, throat, bronchial tubes, or intestines; purpura; copious discharge from the nostrils; albuminuria; great swelling of the cervical glands; marked diminution of temperature, and sickness or diarrhoea, especially at an advanced period. The duration of the disease depends upon the violence of the attack, but if life is not destroyed by the mechanical impediment of the exudation in the larynx & trachea, or the patient

does not sink immediately from the depression which accompanies it, the tendency to the formation of the membranous sores to cease, & that already formed is thrown off by the efforts of nature, and the patient passes into a state of convalescence. It may be set down as a rule, that the duration of the mild form is from 6 to 10 days, and that in the worst cases of convalescence begins at all it is within 20 days. But unfortunately in a large proportion of cases, the worst results of the disease appear after this seeming stage of convalescence, for the sequelae of diph. are variable and formidable, a long train of nervous affections often following the mildest, as well as the most strongly marked cases. Under the most favorable circumstances patients often remain feeble and anaemic for many weeks, the throat very susceptible to cold or raw weather. Nervous affections

are apt to follow — paralysis and anaesthesia of particular muscles; tenderness and tingling of the skin; gastrodynia; impairment of vision (possibly owing to paralysis of the ciliary muscles); strabismus, and deafness. Impaired voice & power of deglutition, sometimes even to aphonia, from paralysis of the muscles of the throat, being very common.

When the cases evince a fatal tendency, death may occur in various ways — sometimes by convulsions; or preceded by constitutional symptoms attendant on gangrene; by haemorrhage — sloughing of the pharyngeal artery having caused it; — More commonly it is by asphyxia; from syncope, or from exhaustion of the powers of life; or from overwhelming of the nervous forces by a certain poison "the nature of which we do not understand, which though it has spent its force to produce local manifestations, has not yet exhausted its fatal

control over the nervous system." Sudden death, when the aspect of the case is not alarming or where all danger seems to be over, is a peculiar characteristic of diphtheria.

Causes.

The history of diph. seems to prove that it is propagated by infection and contagion, and is both epidemic and sporadic in its invasion.

It seems to be however only feebly infectious, being contracted in this way by persons in remaining in the same room with patients sick with the disease, hanging over them, and over & over again breathing the same air; so portion and proper hygienic regulations, except in case of epidemics, generally prevent its spreading in the family. Contagious it certainly is — many physicians having contracted it by having portions of the membranous exudation brought into

contact with some mucous surface, the lip, mouth, nostril, &c, and the poison thereby absorbed, producing a violent attack. Epidemic influences are the most powerful. When the disease appears thus, it seems to be occasioned by some wide-spreading influence, deriving its peculiar character from local conditions, either of population or place, as yet undiscovered. Like other epidemics, while spreading over a wide extent of country, and attacking large numbers of the inhabitants, it is yet sometimes remarkable for the immunity enjoyed by particular places or persons, which all around are subject to its influence:- seeming to fall with as much malignancy upon high, dry, and airy districts, as upon low ones which are damp, and marshy;- prevailing upon one side of a river, and not upon the other, but apparently governed by some local condition, which

we can not discover.

But the predisposing causes are various, and chief among them is age - children between the second and twelfth year being most susceptible to it, and the susceptibility diminishing rapidly after puberty, although there are cases on record of persons 70 years of age having been attacked. The tendency to a fatal result seems to diminish with age, those nearest infancy succumbing most readily. Any cause which tends to impoverish the blood also seems to produce greater liability to the disease. Thus improper and insufficient diet, crowded ill-ventilated apartments or prisons, in which we find among the poorer classes; and the other extreme of too great indulgence, luxurious living, insufficient exercise, and spending days and nights in rooms warmed by flue-heat, which is

continually extracting moisture from their bodies by insensible transpiration, and thus weakening them by such a continuous & exhausting drain upon their systems; and in fact any cause which will produce want of tone on the part of the system, will at the same time produce greater susceptibility to the disease. And, of course, in a disease, whose strong tendency is to severe depression, where there is less power in the system to support itself, and resist the inroads of disease, there will be more speedily & certainly a fatal result.

Diagnosis.

Diphtheria, or Cynanche Maligna, has often been confounded with Scarlet Fever, & Cy. Tracheales, from both of which it is entirely distinct and seperate. In diph. the first and principal seat of the disease is upon the tonsils & uvula, commencing at first as a small spot, & always beginning in the

ternal (visible) fauces, & often it will spread to the glottis and trachea, producing symptoms of Croup — but Cy. Trachealis occurs without the symptoms of the other disease; without redness or tumefaction of the fauces; without gangrenous symptoms, without febrile movements; and first attacks the larynx and trachea, and is essentially a sporadic disease — The sequelae of diph. are not met with in Croup, it is not followed by long continued alteration of the voice-paralysis of the muscles of deglutition; hemiplegia; strabismus; impaired vision; numbness & tingling of the hands and feet; general paralysis; anaesthesia of parts; long continued anaemia; fatal cyanosis without apnoea; haemorrhage or purpura; gradual sinking without apparent cause, or sudden collapse when all the symptoms of recovery were present; or death by coma or convulsions.

Although no variety of diph. is so murderous as the tracheal, a great number of children die, whose air passages have not been touched by the disease, and whose breathing has not even been embarrassed - Swelling of the cervical glands is not known in Croup; and finally Croup is a local affection, while Diphtheria is a blood disease.

There is no symptom of Scarlet Fever present except the febrile movement and sore throat - there is no "strawberry tongue," - no cutaneous desquamation, no subsequent anasarca; no definite periods; - and it is not a self limited disease as Scarlatina is. Diph. may modify Scarlatina very much, when they both prevail as epidemics at the same time delaying the eruption, or causing it to remain much longer, modifying the sore throat & giving it a diphtheritic tendency. Finally Scarlatina has no remissions or relapses, and scarcely ever attacks

a second time, while Diph. has both relapses and remissions, and affords, not the slightest protection against Reinfection.

Treatment.

All epidemic diseases, coming at long intervals, perplexing by their suddenness and novelty, and startling by their fatality and severity, have been subjected to a vast variety of treatment, and as with them, the treatment of Diph. Membr. has undergone change after change, until recognising its true nature as a Blood disease manifesting itself locally, practitioners of the present day apply their remedies to the constitution, and at the same time to the local affection.

General and local bleeding, blisters and rapid mercurialization was formerly the routine treatment in a disease asthenic in its nature, and whose prominent feature is depression.

Hopefully the eyes of the profession have been opened, and the treatment of to-day seems to be more in accordance with the requirements of the worst diseases; although it is to be hoped that, as science progresses, the true nature of Diphtheria may be exactly ascertained, and the measures used to counteract its fatal destroying power may be more directed by a scientific & intelligent knowledge of their principles.

An extremely important part of our treatment are hygienic regulations, strict cleanliness of persons and rooms & free ventilation. In the earliest stage, if there is much congestion about the throat, cold wet applications, & even ice may be tried, & persevered in, if they are found to produce relief. Blisters and leeching are entirely inadmissible. The bowels may be moved by simple enemata or some mild laxative. In cases of a severe character the tendency is to prostration and death by asthenia, and therefore stimulants

and nourishment must be commenced early & persisted in, a tonic and sustaining treatment being absolutely necessary. In infants, if the stomach reject everything, and the attempt at swallowing is attended with much pain, injections of wine, beef-tea, and brandy may be valuable in sustaining life. As the evidences seem to point strongly to the blood as the seat of the disease, our aim must be to improve its quality, and their success in cases of anaemia, &c, would appear to indicate the ferruginous tonics as our safest and most reliable resort, & of these the Linct. ferri. chlor. seems to be preferred by the great majority of practitioners. Quinine & Chloric Ether have also been strongly recommended, & Potass. Chlor. for its action on the mucous membrane of the throat & pharynx. The auxiliary measures to be adopted are the local applications to the fauces.

It has been objected that these throat affections are merely secondary manifestations of a constitutional disease, whose progress cannot be arrested by applications to them, and that therefore all such remedies are to be rejected, but as we treat syphilis, carbuncle, scrofula, &c. locally, and as experience teaches them to be useful in diphtheria in relieving the local distress to a certain extent, they must be persevered in. Formerly the eruded membrane was torn away by forceps but this rough mode of treatment has been abandoned, & caustic applications are made of Argenti. nitras, &c – a solution of from 30 to 60 gr to the ounce of water being quickly wiped over the affected part by means of a probang. The Tinct. ferri. chlor. is often substituted, applied by means of a brush or in a gargle ʒij to Aqua ℥viij

Gargles of Potass. chloras. are useful to correct

the fetor which is often present.

When all other remedies have failed to afford relief, and the patient is sinking from obstructed breathing, the operation of Tracheotomy is usually regarded as a "dernier ressort."

The majority of cases operated upon under these circumstances have unfortunately proved eventually fatal, but of the whole number a respectable percentage has resulted favorably, & therefore encouragement is offered to undertake the operation.

One great reason for the unfortunate results seems to be that the practitioner is very unwilling to resort to this means of relief until all other means, and when the relief obtained when he does operate, is not sufficient to rescue the patient from his overwhelming condition.

If the knife is to be used at all it ought to be in a middle state, neither too soon or too late.

"So soon as we feel that our remedies are too tardy to overtake the disease" the operation ought to be resolved on and not delayed until there is a state of complete prostration, from which it would be almost impossible to bring the patient up. The treatment then may be summed up as follows — a mild purge, to empty the alimentary canal; gargles of a caustic character either mild or strong according to the exigencies of the case, argent. nit, and tinct. ferr. chlor. being preferred; stimulants, tonics, and nutritious broths, as brandy, wine, ammoniac. carb., quinine, tinct. fer. chlor., beef tea, &c; and lastly Tracheotomy — to be performed when there is a reasonable hope of a favorable result, and not to be delayed until the patient is well nigh "in articulo mortis".

H. Cruikshank
1865

[illegible]

[illegible]

[illegible]

[illegible]

place to its own funeral dirge.

Nations, not less than individuals are sub[illegible]

[illegible]

has been exhausted in trying to [illegible]

[illegible]. But [illegible]

accumulated strength of centuries, Babylon

like its builder, has become dust, and the

sexton of the ages has consigned them both

to the [illegible]. [illegible]

etable kingdom also this law maintains.

[illegible]

of being. [illegible]

[illegible] But action begets [illegible]
and this, exhaustion; and this is followed of death.
But by an all-pervading law, death is the gate-
-way to life; and thus, the mysterious cycle
is sustained. As has been already hinted,
nature is a chain of analogies. The life
of relation is the type of essential organ-
-ized existence; and the social man, of
the physiological. Objective existence is
the [illegible] of [illegible], [illegible]
prophecies of symptoms. The historian
chronicles a parallel to the records of the
physiologist. The human body is a depar-
-tment of nature's great laboratory. Here
is incipient, perfected, and dissolving organiz-
-ation. Here external [illegible]

becomes a nidus of new beings. Thus the physical organism maintains its continuity, and accomplishes its designation by the working of two inherent tendencies — the one toward death and the other toward life. And we have the seeming paradox of coetaneous mutual antagonism and mutual harmony and sustenance. For while their results are contraries, the tendencies themselves do harmonize, and produce this physical [illegible] phenomena of animal life — by which we mean the life of the animal, including both animal and organic existence. These then are the facts. All physiological facts depend on, and are subordinate to some law. Thus

[illegible] regards [illegible] a law that permits of the continuance of no element in the system that would mar the [illegible] of its action. Likewise the facts we have [illegible] to a law. What then is this law—this [illegible] and determines the issue of continuance or [illegible]-ination, of life or death? The thing alone is essential. [illegible] whether we call it the law of repair, the recuperative power of nature, or the "vis medicatrix naturae". We shall [illegible] discuss whether or not there be [illegible]. For this would [illegible] terms. We have already seen in all nature [illegible] death.

[illegible]

[illegible]

[illegible]

tendency and a like reparative process. These being constant, must depend on some [illegible]; this we propose to call the "vis medicatrix naturae", which we shall define as "that instinctive healing power in an animal or vegetable, of which it can repair injuries inflicted upon it, or remove disease. For our purpose, we may [illegible]

[illegible]

act, whether of mind or body, is attended by loss of material in the agent of such act. The bend [illegible] an expelled, not less than the greatest physical exertion; even mental process from the conceiving

unity up to the highest intellectual effort, necessitates the death of matter. When we re-flect then, that during life there is not a moment of absolute rest, it is very apparent how great, how rapid is the work of exhaustion of death. Now were there no counter tendency, the inevitable result must be the death of the whole organism. But as this is not the result we conclude there is a counter tendency. Is not the ~~the~~ unconscious experience of the physiological man, then, but a parallel to the observation of the social? And is it not true that birth and decay move in endless reciprocal succession, describing that mysterious circle we call life?

Having noticed the existence of a law, and the [illegible]ity for its existence, let us now consider the law itself. In the first place — regarding the

[illegible]

an injury (and what is disease?) [illegible] in any [illegible]-fined, in its broadest sense, to be any impress that forbids the normal exercise of the natural functions. [illegible] -ter in which it fails to perform its functions natu-rally. These then may be considered as standing [illegible] injury causes disease. The impress produces the condition. This then being the fact, what are its bearings? To what conclusion does it lead? Certainly — that the organism constantly represents the various conditions of the objective man — healthy, [illegible] and that this law is ever present as sickened, [illegible] Nature's physician — restorer. It must [illegible] remembered that we are [illegible]

[illegible] its widest significance, and not recognizing it
as such [illegible] when it becomes a [illegible]
[illegible].
Well then it may be asked is the [illegible]
even in [illegible]? We answer certainly. [illegible]
necessarily dependent on disease. But [illegible]
[illegible]
is therefore as constant. Here then is another paradox,
– that in a state of "perfect" health there is [illegible]
[illegible] disease – it may be of a single tissue, [illegible]
[illegible]. Admitting all this, we see [illegible]
the extent of its prevalence, the [illegible]
law; and conclude that it is [illegible]
[illegible]
[illegible]
[illegible] which [illegible] it would resolve the
[illegible]

the subjective facts. But it is with the objective we have especially to deal. And while we can not ignore these, let us attend especially to these, and restrict the consideration of this law, not as the handmaid of Nature, her constant attendant repair the lacerations incident to life itself; but only as it appears in the capacity of sickness-

a new [illegible]. [illegible]
-tive economy of nature! What a testimony to the
wisdom of an arranging Providence! Here is a vast
-igation of the promise to the fallen. The same
Wisdom that inflicted on the transgressor the
penalty of a destructive impress, has accompanied
it with a principle of repair, life sustaining.
It is in disease then in its ordinary acceptation
that [illegible]
[illegible]
[illegible]
-healthy-
[illegible] functions [illegible] in ~~[illegible]~~ [illegible]
which we call health. And here it may
[illegible]
[illegible] the normal condition of things, which are
[illegible]
[illegible]

in the natural disorder, and thus we may [illegible]
an infraction of the general law. But of this
more hereafter. What then is the office of the
V. M. N. in the sphere to which it is here restr[illegible]
[illegible] There are many conditions which are
[illegible]
and, were they examined by the physician, would
be recognized by him, as disease. Indeed the very
composition of the word itself — dis-ease — indicates
that any, even the least, departure from a feeling of
comfort is disease. This condition may [illegible] tran-
-sient. But the [illegible]
it of its essence. Nor can the insignificance of the
[illegible] dis-
-comfort produced by an excess of ingesta is disease, in
its legitimate sense. Now in such states, there
is [illegible]

[illegible] condition passes away; and the return of the sup-
-perer to a feeling of comfort teaches him that the dis-
[illegible]
[illegible]
most perfect type of life and that of death — that is,
[illegible]
Its tendency is therefore towards death. Well
[illegible]
tendency in the case where [illegible]
result. But, in the case supposed, [illegible]
was no visible interposition. This invisible in-
-position is what we claim. [illegible]
[illegible] the O. M. N., the reality [illegible]
[illegible]
[illegible]
kind offices to rescue the [illegible]
[illegible] attacks that imprudence may have

[illegible]

in more disastrous misfortune? That when [illegible]

[illegible] under the weight of accumulated ills, is

[illegible]

[illegible]

confidence? Certainly not. Well then, from abstract

reason we conclude the constant presence of this

law, and arrive at an estimate of the nature of

its function. When we come to the consideration of

[illegible]

a more accurate estimate. Meanwhile let us consider

its modifications. We shall see that in this respect

it bears an analogy to the action of medicines, and

[illegible] to diseases — that it is modified [illegible]

[illegible]

congenital impress. Indeed it would be impossible

[illegible]

[illegible]

a seed the organism itself. Nature is not [illegible].
She is essentially harmonious; yea harmony itself.
In regard to the influence of age it may be
said — this power is greatest in the crescent of
-hood; that is between the period of finished osi-
[illegible]
supposed to begin its descent into the vale.
Senile weakness — between the ages of twenty five and
forty five years. It would seem that the organism
is most perfect during this period. It is natural
to suppose that with the completion of the
work of ossification the system undergoes what
[illegible]
this period [illegible]
[illegible]
vices — Tuberculosis — is supposed to be comparatively

if not absolutely overcome. This fact alone [illegible]

[illegible]

[illegible] with a new strength. Indeed until [illegible]

the organism is not complete: the process of [illegible]

[illegible] is still [illegible]. [illegible]

the bony system evidences its perfection; and the

whole organism being complete, its capabilities of

ensive and defensive must be greater than previo

usly. After this period the system becomes progress

ively stronger until it reaches its acme, after which

it begins to decline. Of course this is not abso

lutely the same in every individual. But the ave

age is at about forty-five years. I know there are

certain special diseases that modify this fact.

But the general law holds good. And here is

wisdom. It is between these periods that the

[illegible]

[illegible]

[illegible]

reaching mid-heaven he shines with perfect splendor for awhile, and then hastens to his secret occident.

[illegible] then, that during the period of greatest usefulness, he should have additional security [illegible] (for the [illegible] two, who live to old age) it would seem to be weakest. [illegible] during the periods of [illegible] and retrogression that this power is least. Here too is wisdom. To nip the buds of promise may more ex[illegible] scatter the fruits and flowers of realization. So too [illegible] that of the slain pride of the present; and [illegible]

[illegible]

Thus we have the sanguine, the nervous, the [illegible] temperaments; their names [illegible]

And though in each, this law may be [illegible]

[illegible]

[illegible]

yet in regard to their capability of [illegible] the assaults of disease in general, it would seem that in those in which there is the greatest [illegible] this power is least. [illegible] bilious temperament seems to exemplify this power most perfectly. In this therefore we suppose the [illegible] In regard to [illegible] the inquiry [illegible] certain morbific agencies, the injurious influence

of estimate the same in substance ne-
-ced. That which necessitates the least art-
-ificial aids for the preservation of comfort,
is most conducive to an equable condition of
mind and body, which in itself is invigorating.
It is in such, therefore, that the V. M. N.
is greatest. Congenital impress— There
may be constitutional taint or weakness, or
some organic malformation which is hereditary,
or, at least, exists in the individual at
birth. Such must necessarily modify the ca-
-pabilities of the system. In such, the V.
M. N. being participant with the organism,
must be weaker than in the more nearly perfect
organization. We pass now to consider more part-
-icularly the proper function of the V. M. N.

From what has been said it must appear that the predominant tendency of the organism is toward self-preservation. In that condition called health this is evident. In the [illegible] forms of disease, when we consider how often, without any extraneous aid, and sometimes in spite of professional officiousness, the system throws off the disease, and returns to its normal condition, this tendency is still manifest. It is reasonable then to suppose it [illegible] [illegible] constitution it is difficult to estimate its force, and its result without the physician's aid. Certain it is that very violent cases have terminated [illegible]-ably in which this was the only agency to combat the work of disease. We infer then that the [illegible] [illegible] the [illegible]

is to combat disease and thus preserve [illegible]
-temic equillibrium. And here it may
arked that every instance of disease is not
practically appreciable. There may be [illegible]
-ituent excess; and this however slight, is dise
[illegible]. For instance—plethora, which if not excess
[illegible] might be mistaken [illegible]
[illegible] indication of perfect health, is really a de
[illegible] true ballance, and therefore dis
[illegible]
[illegible]mizable. It is frequently relieved by hemorrhage
which is only a manifestation of nature's effort,
[illegible] [illegible]
As to injuries, there are scarcely any within the
[illegible]
[illegible] which the system, without medicament,
[illegible] not rally. In all nature's effort is a

[illegible]

the notice of him who reflects at all. In all solutions of continuity, medical interference is useless. In the [illegible] punctured or lacerated, the essential part of the Surgeon's work consists in removing the cause if it still remain, and in mechanical adaptation, which nature secures by a process of her own. Hence the pseudo reputation of those profane Empirics who [illegible] nature [illegible] [illegible] [illegible] of some nostrum. In fractures [illegible] [illegible] perfectly. The fragments being properly adjusted and secured, she immediately sets up the process of repair. And fortunate it is for truth that [illegible] [illegible] [illegible] [illegible] of the callus are palpable facts. Else

[illegible] that [illegible] the [illegible]
[illegible]
forceny. In dislocations there is rupture of the ligaments. The reduction being accomplished the repair of the laceration must be left to nature — and she effects it. In irritation [illegible] and in the coating of tears we have both lubrication of parts which would otherwise become painfully and injuriously dry, and also a protection against the bad [illegible] of superabundant light and immediate atmospheric contact. In internal inflammations nature's effort is so evident and so efficient as to inspire the [illegible] physician with an [illegible] respect, and a due caution lest his interference become officious, and his aid be misdirected.

In pneumonia this truth is particularly exempli-fied. Here all the resources of art are totally in-competent to the removal of the disease. After the inflammation has passed through its several stages and been [illegible], the result is an [illegible]ing of the lungs with an accumulation of [illegible]. To remove these by any skill of the physician is utterly impossible. He must acknowledge his weak-ness and [illegible] wait the action of nature. She does act — in first rupturing the cells and then effecting their absorption. Now the lung is relieved, but this matter is still in the system, and if it remain would act injuriously. It must therefore be gotten rid of. Can the physician effect this, or will nature? Nature does it, and the whole work of the physician consists in the administration of necessary [illegible] [illegible] [illegible] [illegible] stories, where [illegible] this matter [illegible]

[illegible]

[illegible]

Here then [illegible]

agent. In most of the essential fevers nature is the essential and the physicians aid the incident — well-timed and necessary it may be: but still it must be subordinate; and [illegible] is only a judicious following of the pointing of nature. An instance is furnished in [illegible] in which the disease though frequently violent cannot be [illegible] by any means [illegible]. It must be [illegible] to nature. [illegible] ian ministers to nature [illegible] and removing those obstacles that may [illegible] do impede [illegible] work. And so illustrations special [illegible] might be multiplied indefinitely, but [illegible] the-sical skeleton has become in extent a thesical

[illegible]ity, and the limits have been reached where mod[illegible] [illegible] would fight pause. In conclusion let it suf-fice to suggest that the intelligent and wise practitioner [illegible] [illegible] the intricate way that duty calls him than that furnished in nature [illegible] [illegible] -gestions, imitate her example, resolve always to join hands with her. And if this be done carefully, intelligently, he may [illegible] the proud satisfaction that rewards the purifyer [illegible] [illegible]. [illegible] true foundation of the cure of disease. Without this science [illegible] weave her theories, and skill practice them with an [illegible] [illegible] [illegible] -rospect [illegible] [illegible] [illegible] -ture till its finished dome [illegible] [illegible] [illegible] continue to appall, and death be their reward.

[illegible]

An

Inaugural Dissertation,

on

Intermittent Fever.

Submitted to the examination

of the

Provost, Regents and Faculty

of Physic,

of the

University of Maryland.

For the

Degree of, Doctor of Medicine,

By

Thomas. K. Barber,

of

Maryland.

Feby. 14th 1865.

Intermittent Fever.

In selecting this disease as the subject of an "Inaugural Dissertation," the writer does so, not that he will be able to adduce anything new or original, but from the fact of having been reared in a Miasmatic district in the Southern portion of this State, where he has had ample opportunity of observing as well as experiencing the disease.

Intermittent Fever, popularly-termed "Ague and Fever," is the most common form of Miasmatic fever, differing from its kindred disease, Remittent Fever (as the

term intermittent implies) in there being a complete intermission. There are several types of this disease, the ordinary forms and those most frequently met with are the quotidian, tertian and quartan, other forms are mentioned, but are exceedingly rare. Of the above regular types, the tertian is by far the most frequent, quotidian next and lastly quartan, the quotidian often changing to tertian.

The tertian form is characterized by the paroxysms occuring every other day, with an interval of about forty-eight hours. The

quotidian every day with an interval of about twenty-four hours, and the quartan every third day with an interval of about seventy-two hours. The above regular types are liable to numerous diversities, the quotidian is said to be sometimes double, having two paroxysms every day, this form is rare and in no instance has it come under the notice of the writer.
Another form, the double tertian, in which there is a daily paroxysm occuring at different periods on successive days, the paroxysms on alternate days corresponding

with each other, Thus as an example the paroxysms on the first and third day occuring in the morning and correspond with each other while on the second and fourth day, they occur in the afternoon and also correspond, this form is also rare, yet occasionally met with, and may be said to be the only diversion from the regular types deserving mention. Tripple tertian, double quartan, tripple quartan &c are mentioned but are of no practical value.

Symptoms — Each paroxysm when regular and fully formed consists of three distinct stages, -

which occur in the following order viz: The cold, the hot and the sweating stage. The paroxysms are generally preceded by lanyour or weariness - general uneasiness, stretching, yawning diminished apetite especially for the morning's meal, and one almost invariable symptom in connection with those previously mentioned is that the end of the nose and tips of the fingers are cold. These symptoms may recur for several days, passing off almost unnoticed until they come on with increased severity. Attention to these imperfectly formed paroxysms is im-

portant, for if treated in time they almost invariably may be arrested. These prliminary paroxysms do not occur in all cases, the patient being sometimes seized with a paroxysm in the midst of apparently good health and without any premonitory symptoms.

The cold stage —— Generally after the premonitory symptoms yawning, stretching &c and sometimes vomiting, the patient experiences sensations of chilliness especially along the back and limbs, these soon increase and spread over the body, the patient shivers-

rapid and successive shudders run through the frame, the teeth sometimes chatter, the surface generally feels cold to an observer, especially the hands, feet, nose and ears, though this is not invariably the case, sometimes the surface is hotter than in health, even when the patient complains of chilly sensations, the face is pale, the surface contracted and often presents the roughappearance called "cutis anserina" (goose skin) which is said to be owing to the projection of the sebaceous and capillary follicles while the proper tissue of the skin shrinks, the lips and end of fingers

are often purplish, there is often thirst for cold water and when allowed in any considerable quantity generally produces vomiting. The breathing is generally irregular and hurried, the pulse varies sometimes accelerated sometimes slow, often, feeble and irregular. the urine is generally pale and copious. often the patient complains of pain in the back. The duration of this stage varies, generally estimated at about an hour, though often does not last so long.

The Hot Stage ——— In the passage from the cold to the hot stage, rigors alternate with

flushes of heat, the breath becomes warmer, gradually the whole surface becomes hot, but even now if the patient move a limb to a cool part of the bed sudden chilly sensations are felt through the frame. After a while all traces of the cold stage disappear, the cheeks become flushed the eyes brighten and evidences of increased heat of body, appreciable not alone to the patient, the temperature of the body is positively increased as proved by the application of the thermometer. The mouth becomes hot and dry the thirst is greatly increased -

The respiration becomes more regular than during the cold stage, but is still accelerated, the pulse becomes more frequent and is fuller and stronger, the secretions are diminished, the skin dry and the urine scanty and high-colored. Headache is a very common attendant upon this stage. The pain often throbbing, Also pain in the back. The patient is sometimes delirious, this does not often happen, sometimes with adults, especially females of very nervous temperament and with children. The duration of this stage varies also.

The Sweating Stage —— Perspiration now makes its appearance sometimes slight but more frequently copious, the febrile symptoms abate, the skin becomes cool the mouth moist, the headache disappears and the patient experiences so much relief, often falls into a calm sleep, from which he awakes free from fever, though a feeling of weakness, lassitude and soreness generally remain.

Having considered the various stages, it may be well to notice, that they bear no proportion to each other, a severe chill being

frequently followed by less fever, than from a slight one, and the fever sometimes occuring without any perceptible chill. Cases are not unfrequent in which there is simply a blueness about the nails and coldness of the extremities, this is commonly termed "dumb Ague" and the patient when questioned, replies that he does not remember having had any chill, generally saying he felt a little unwell before the fever came on.

The Intermission - which is the time intervening between the termination of one paroxysm and

the commencement of the next, differing from the interval, which includes the time occupied by the paroxysm, during the intermission the patient though without fever is not entirely free from signs of disease, General languor - furred tongue and feeble appetite generally remaining - together with a pale or sallow complexion. One peculiarity of this disease worthy of mention is that the paroxysms seldom occur during the night.

Effects — If Intermittents be allowed to run on indefinitely or from their frequent recurrence

from exposure to the cause, very disagreeable effects may be produced - among the most common of which is disease of the spleen which becomes enlarged and occasionally indurated, in which condition it is popularly spoken of as the "Ague cake" a well known affection in miasmatic districts. In like manner morbid changes occur in the liver, giving rise to depraved secretion and disturbance of the digestive organs and in some cases to permanent enlargement and induration. Another result deserving mention is dropsy, which

is said to be produced by the substitution of a serous discharge for the perspiration. The urine is said to be often found albuminous, yet the dropsy is generally curable. Dropsy in this disease also proceeds from organic disease of the liver and spleen, this form of dropsy is often obstinate and sometimes incurable, for though relief is apt to return as long as the cause remains, yet there is always some prospect of removing it, by eradicating the original affection. Intermittents have been thought by some to be useful by superseding other diseases

especially nervous diseases, and even the tendency to phthisis has been thought to be communicated by it, but as we have learned from our worthy and highly esteemed professor of practice of this University, it is probably on insufficient grounds.

Anatomical Characters— The proper anatomical characters of Intermittent fever have scarcely been ascertained as cases of death are rarely or never met with from the ordinary form of the disease, among the affections which have been most frequently observed, in persons who

have died while laboring under Intermittent fever, are affections of the liver and spleen. the liver has usually been found congested with blood of a dark color, the spleen is usually found enlarged and altered in texture, sometimes broken down and softened, resembling coagulated blood enveloped in a membranous covering.

Causes —— The specific poison "Miasmata" is said to be the essential cause. of the precise nature of this peculiar poison nothing definite is known, it having baffled the skill of the most scientific chemists, the

circumstances which appear to favor its production, are heat, moisture and vegitable decomposition. In what manner Miasmata acts in producing this disease cannot be known until something is discovered in regard to its chemical nature. Prof Wood thinks it enters the circulation by means of absorption, principally through the aircells of the lungs. The disease is said to be produced by other causes, such as produce temporary irritation as the introduction of instruments into the urethra, indigestible food, worms

in the alimentary canal &c., but cases of purely irritative intermittents are probably rare, the causes seeming to produce it being perhaps only exciting, the predisposition existing at the time. The poison seems to effect more readily, those who are debilitated from any cause whatsoever, it often lurks in the system without any observable effect unless it be a feeling of general uneasiness, until some exciting means causes the disease to be developed, exposure or excesses of any kind often acting as the exciting means. The disease is most common-

during the latter half of summer and first of fall, before the occurrence of frost. The time at which the disease attacks after exposure to the miasmatic cause is indefinite, depending upon the intensity of the poison, the patients constitution, habits &c. The old and infants are perhaps less frequently affected than those of an intermediate age, and women less than men owing to their being less exposed to the cause, no doubt if equally exposed the reverse would be the result, their constitutions being more delicate, would be

less able to resist the poison, at least-
I have observed this to be the
case with negro-women, who work
as field-hands and are conse-
quently much exposed. Negroes
are said to be less liable to the
disease than whites, though I have
not observed any very marked
difference in my section of
country, perhaps it may be
that they are more exposed to
the cause, their quarters have
no upper rooms for lodging
and are not always on elevated positions, owing to these cir-
cumstances, they may be affect-
ed equally with the whites, who

are less exposed. It spares no age. Tis said to have attacked the foetus in the womb, indicated by the periodical trembling of the uterus experienced by the mother. It affects strangers much more readily and decidedly than residents and their cases seem more obstinately to resist treatment.

Diagnosis —— The only diseases with which this disease is likely to be confounded are hectic and remittent fevers from the former it may be very easily distinguished by the irregularity of the recurrence

of the paroxysms, the night reveals the peculiar brightness of the eyes, the clearness of the complexion, and above all by the existence of serious organic diseases, of which the hectic is a mere symptom. From Remittent Fever it is more difficult to distinguish, to be determined principally by the continuance of fever in the remittent form, there being only a slight remission sometimes scarcely perceptible, the secretions are more of the bilious character, the epigastric uneasiness and irritability of stomach are greater, the nervous system generally more affected, the -

head-ache is more common and constant, and generally severe.

Prognosis. —— Intermittents of the ordinary form, now always considered favorable, when properly treated, Since we may indeed say we possess a specific for the treatment of this disease, which will be mentioned hereafter when speaking of the Treatment. The chief danger is from complications. When the paroxysm occurs an hour or two later than the expected time it is generally regarded as a favorable sign, so also is the occurrence of an eruption about the mouth and alae-nasi, commonly called

fever blisters. The quartan is generally most difficult of cure and the tertian easiest; the quotidian being intermediate. There is generally a strong tendency to return, the slightest causes often provoking a return of the disease.

Treatment —— We have come now to the consideration of the treatment of this disease - perhaps I would be well to consider the treatment of the various stages seperately, in the order in which they generally occur. Generally during the paroxysm very little treatment is required. During the cold stage

the patient should be warmly covered in bed, hot bricks, bags filled with hot sand, bottles of hot water may be applied to the feet and along the spine. Opium has been recommended when there is much nervous disorder and tis said affords much relief and sometimes shortens the chill and moderates the subsequent fever. It may sometimes be necessary to stimulate as when there is great prostration with very feeble pulse for the purpose of stimulating, Carbonate of Ammonia and Oil of Turpentine given internally and active rubefaction with-

Cayenne pepper heated in brandy and hot oil of Turpentine. Warm Sinapisms may be applied to the inside of the thighs and over the epigastrium. When there is much nausea with ineffectual efforts to vomit, mild emetics may be given often affording great relief. Blood-letting has been recommended by some but I have never seen it tried, nor do I think it advisable, other measures already mentioned generally proving efficient.

The hot stage — During the hot stage an opposite plan must be pursued, Cooling drinks being

required, though they should not be allowed in such quantities as to oppress the stomach. pounded ice here becomes a valuable remedy and is very grateful to the patient. The effervescing draught is also an excellent remedy in this stage. Nitrate of Potassa dissolved in water may also be used. In few cases will it be necessary to resort to other remedies. When the pulse is full, strong and hard with severe pain in the head, dry cups may be used or a little blood may be taken by cups or leeches. The surface of the body may be sponged with tepid or

cold water, as seems most agreeable to the patient, simply sponging the face and hands often affording great relief. Sponging should not be employed, when there is any moisture upon the skin.

The Sweating stage —— In the Sweating stage it is only necessary to prevent the patient being exposed to cold so as to check the perspiration.

In the Intermission —— The time has now arrived for efficient Treatment, which is both simple and effective. Emetics once so much in vogue, have now gone out of use, the only-

condition in which they could be of any advantage, is when the stomach is loaded with undigested food or oppressed and irritated by acrid accumulations.
The bowels should be evacuated, for this purpose Calomel is preferable, as it not only evacuates the bowels but also unloads the congested liver, it may be combined with some other purgative, to insure its action, as rhubarb, Scammony, Jalap, or Comp. Ext. Colocynth, or the Calomel may be given alone and followed in the course of eight or ten hours by a dose of Castor oil or Sulphate of Mag-

nesia. In mild cases where there are no signs of biliary disorder it may be sufficient to give a dose of one of the saline cathartics, though I think it better to prescribe Calomel in first attacks, as it will do no harm, a cholagogue being generally required. After the bowels have been evacuated we must commence with the medicine, which comes as near to the character of a specific in the treatment of intermittent fever, as possible, which is the Peruvian bark or its preparations of these the one which has seemed to succeed best is the Sulphate

of Quinia, this being far preferable to the bark, as it possesses all the antiperiodic properties of the bark and may be given in cases in which the bark in substance would not be borne in consequence of the bulk, in which it would have to be prescribed to obtain the desired effect. The action of Quinia in the cure of intermittent fever is not definitely known, it is thought that by its impression on the system, especially the brain and nervous system generally, it supersedes the paroxysm, upon the principle, that the system is

indisposed to support two morbid actions in the same part: the sulphate of Quinia substituting its own diseased action, being in full effect at the time for the return of the paroxysm of the periodical disease. It has been stated that the Sulphate of Quinia should be commenced with before the intermission, but this is scarcely ever necessary, unless it be in the pernicious form of intermittent fever, which owing to its severity and rare occurrence, deserves a separate consideration. From twelve to twenty-four grains of the Sulphate of Quinia

should be given during the intermission, seldom less than twelve grains can be relied on, the amount required being different in different individuals. The effect of the medicine is known by the buzzing or roaring in the ears. It should be given so that the system may be fully under its influence at the time of the expected paroxysm. It is best to give it in divided doses, sometimes it may be necessary to give the amount required at a single dose, as in certain forms of the Quotidian where the intermission is so short as not to admit its

being given in divided doses. In this section of country, the Tertian type is so very common, that the administration of the Quinia is generally deferred until six or eight hours before a paroxysm of this type is expected to occur, though I think it better to begin the administration sooner, knowing the possibility of its being of the Quotidian type, treating the disease as though this form were anticipated, as thereby the patient may be spared the pain of at least one paroxysm, only having to undergo the unpleasant effect of the Quinia, after one

paroxysm has been interrupted, the Sulphate of Quinia should be resumed on the day on which another paroxysm would be expected, had no treatment been instituted, in order to insure success and avoid a speedy return of the disease. It is of little consequence in what form it be administered, whether in pill or solution, provided the pills be freshly made, they then readily dissolve in the stomach. The solution is preferable for children, when given in this form one drop of Aromatic Sulphuric Acid may be added for each grain of the Sulphate.

of Quinia, by this means it is made more soluble, and also deprives it somewhat of its disagreeable and bitter taste. If the mouth be rinsed with a strong solution of alum just previous to taking the Sulphate of Quinia its disagreeable taste will not be near so marked. Advantage sometimes results from combining the Sulphate of Quinia with other medicines as Capsicum and black pepper, piperin the active principle of black pepper has been used alone and in combination. Various cheaper preparations of the bark, have been substituted

Sulphate of Quinia
for the, ~~Quin~~, but none are so re-
liable. The Sulphate of Cinchona
in double the dose of Sulphate of
Quinine, is highly recommended,
on account of its cheapness, it
has been used to a considerable
extent, yet in this section of
country, has not seemed to
merit the success claimed for it
and is now very little used, no
remedy having been found a re-
liable substitute for Quinia or
its preparations.
There are other remedies, possess-
ing anti-periodical properties, of
these perhaps Arsenic deserves
to be ranked next to the bark.

The form best adapted for administration is the Arsenite of Potassa or Fowlers Solution, which should be administered cautiously and its effects carefully watched, It should be given in doses of a fourtin drops three times a day, it may be continued until the disease is arrested or its effects are shewed by slight oedema of the face, puffiness of the eyelids oppression of stomach or feeling of muscular weakness— when either of the above symptoms make their appearance, the medicine should be discontinued lest its poisonous effects be

produced, as a general rule, its use should not be pursued in much beyond a week.

Sulphate Copper, Sulphate Zinc - various salts of Iron &c, have had some reputation in the cure of this disease, but are now scarcely or never used. Nearly all the Vegetable Tonics have been employed in intermittent fever. The Cornus Florida, Wild Cherry & various species of Willow have been employed — Much has been said in regard to Salacin, the active principle of the Willow, which probably is not without power, though

greatly overrated, at least it does not act well in this section

There is still another mode of treating Intermittents, it consists in making a strong impression upon the system, in anticipation of the paroxysm, and thus precede the entrance of the disease For this purpose Emetics are employed, so as to be in operation at the time of the expected paroxysm. Opium, brandy &c given an hour or so before the paroxysm will often prevent its occurrence, but the objection to these remedies is that if they fail to arrest the paroxysm

they may greatly agravate the fever. Anything which makes a powerful impression on the body or mind will often prevent the recurrence of the paroxysm, but they are much more liable to return, than when arrested by the true antiperiodic remedies. In conclusion I will again repeat that no remedy has yet been found so efficacious as the Sulphate of Quinia.

Prophylactic Treatment——

When possible Miasmatic regions should be avoided from the beginning of very warm

weather to the occurrence of frost but this is not always possible or convenient- Exposure early in the morning or late in the evening should be avoided as much as possible, When necessarially exposed, it should not be with an empty stomach, But a surer prophylactic treatment, is to keep the system slightly under the effects of the Sulphate of Quinia, two to three grains being administered each day, for some time after an attack of Intermittent fever. Or the bark may be used, a good mode of administering it, being

to add two ounces of the bark to the pint of Port wine, after standing several days, to take a wineglass full every morning.

Persons in Malarious districts should also be advised to lodge preferably in upper rooms of dwellings - closing the windows early in the evening - particularly those upon the side from which the miasma is supposed to arise, is also said to afford some protection.

Miasma may, to a certain extent be prevented from entering dwellings, by their being surrounded by a growth of trees. —

Conclusion, It will be seen that our main reliance is upon the Sovereign remedy, Sulphate of Quina. Which indeed, not only in this disease, but in most periodical diseases is "The remedy."

It has been stated in a late clinical lecture, by our learned professor of Surgery, that of late, very many diseases in this City, have seemed inclined to assume a form of periodicity, and thinks miasma, has prevailed to a greater extent than for a number of years past.

Respectfully Submitted
by Thos. K. Barker.

An

Inaugural Dissertation

on

Phthisis Pulmonalis

Submitted to the

Examination

of the

Provost

Board of Trustees

and

Faculty of Physic

of the

University of Maryland

by

Robert R. Bowlin

of tuberculous matter, this neutrino morbi, over which remedial means so often fail to exert any favorable agency. Tubercle is the same in all its essential characters in whatever part of the body it may be found. It consists of a white or yellowish substance, which increases to a moderate size, rarely larger than that of a large almond, and generally much smaller when it begins to soften, (which change some contend commences in the center others near the sides) and is finally converted into a very thick partly yellowish liquid of a dull yellow color and a heavy nut not fetid smell. As soon as this softening takes place: the delicate cellular membrane which always incloses tubercle like other morbid products of an analogous kind, begins to assume the character of a pus secreting membrane and becomes

thicker. Ulceration of some portion of it finally takes place, and the matter finds its way round the exterior of the body, generally by means of a mucous tube if such should be in connection with it. It is composed of both organic and inorganic elements (albuminous and animal matter) the salts of lime being the chief. It is of the deposit or extravasation of this salt, inorganic material in the lungs, and the incident phenomena of morbid action that this thesis is expected to treat i.e., Pulmonary Phthisis, with some of its anatomical characters, symptoms, course and treatment. Consumption of the lungs is frequently regarded as merely a local disorder yet the essential character of the disease depend much more upon its diffusion through the whole body than upon the local mischief

which is often comparatively light indeed it must be viewed as a complex disorder the brain being only the local expression of a grave constitutional trouble a diseased action pervading the whole economy. It is quite universally conceded to be the greatest existing scourge of the human race in the northern and middle latitudes, and is said to cause at least one eighth of the deaths north of the tropics. Its mission if such it be is truly a long and deathless one and as the Nemesis of an outraged law seems to mock in chief the failing effects of remedial knowledge to meet its avoided aims. Although it makes its principal havoc among the poor and miserable we often see it invade without distinction the abodes of temperance, of refinement, and of luxury

and number among its victims the young, the accomplished and the beautiful. The most frequent variety of tubercle in the lungs is that which commences by gray or yellow granulations and gradually passes into a more developed stage but the infiltrated tubercle is also extremely common although rarely found alone that is, without the gray granulations. Both of these varieties begin at the apex of the lungs in the majority of cases, and are said by some to be found with nearly equal frequency on both sides, yet I am inclined to the opinion which regards the summit of the left lung as the most frequent seat of its occurrence. Besides these two species of tubercle, the lungs are often more or less thickly studded with a number of small granules of firmer consistence almost a hard

by many is regarded as nothing more than the tissue of the lungs which is paler and more indurated than the subjacent structure.

By the progress of the changes above described the lungs is at length so far destroyed as to be no longer adequate to the performance of its office and the patient perishes. Intense happily is not the invariable sequence. In many instances conclusive evidence is afforded by dissection of attempts not always abortive to repair the injury. When the tissue assumed is hardly its lining membrane sometimes ceases to secrete the walls contract and the opposite surfaces coming in contact unite together and are consolidated into a fibro-cartilaginous body which is harmless to the lungs again absorption of the organic elements of the tubercle may

are the earthy or saline portions to left
encysted. Sometimes they are discharged into
the bronchial tubes and expectorated. In the
lungs these calcareous bodies are most frequently
met with in the chronic variety of Phthisis
especially in that connected with a scrofu-
lous tendency. In these cases they appear in
the form of granules of various sizes from
that of the head of a pin to that of a large
pea. Pulmonary Phthisis like other forms
of tuberculous diseases occurs either as an acute
or chronic affection. Both varieties may be at-
tended with local inflammatory action in the
lungs or may be almost entirely free from it.

The first or acute variety is the most
difficulty to distinguish because the disease
does not at first differ from ordinary pleurisy

and the important complications may be
overlooked. The signs of pleurisy have to dis-
appear as those of tuberculous disease. Of
themselves two stages are generally recognised
in Phthisis the first extending to the period
when the cavities are formed the second after
they are developed. In the first we have
rough which is usually slight and occasional
at first accompanied with but little or no ex-
pectoration (and which if it occurs is purely
bronchial) and is supposed to be the re-
sult of bronchial irritation produced by
the increasing tubercles which act as so many
foreign bodies in the lungs & usually in-
creases with the advance of the disease and
in the second stage becomes very harassing
and thus greatly aggravates the disease.

emaciation, while both the appetite and digestive powers present no evidence of impairment sufficient to account for the rapid decline in flesh. The opposite of this is not unfrequently the case in which obstinate dyspeptic symptoms are present from the first at length the increase of cough and fever, the occurrence of some pain or an attack of hemorrhage from the lungs excites alarm. Often the hemorrhage subsides without any especial interference and is followed by a transient improvement in the cough, fever and pains which often excites the hope of recovery. In other cases it seems to mark an aggravation of the lungs and its progress is greatly hastened. The hemoptysis often returns again and again in some

ever and the patient is seldom without the discharge of more or less blood from the lungs. The cough at length becomes very harrassing, frequently occurring in violent paroxysms, and disturbing the sleep. The expectoration [illegible] on a more purulent character. The dyspnoea and thoracic pains generally increase and the febrile motion is much more emphatic, being marked by a much quicker pulse, flushed [illegible] furred tongue and loss of appetite.

The first stage of the disease is now developed in which state it continues for a variable length of time until it passes into the second state is sometimes rapid at other times [illegible]

gradual. In the second stage the fever is often increased which some incline to attribute to the inflammation excited by the softened tubercle creating an outlet. When this occurs is readily discovered by the altered appearance of the expectoration which now passes from its former bronchial character to a decidedly purulent condition, usually in distinct and well defined masses and sometimes containing softened tubercle in the form of small lumps of yellowish cheesy or curdy matter all these symptoms are now fearfully increased. The cough and expectoration, dyspnoea, pains, hemorrhage, frequent pulse, fever, night sweats, emaciation and debility

in forms more or less distressing mark its progress, until death relieves the sufferer. In the male nothing remarkable occurs in connection with the sexual functions, but suppressing the menses is very common in women, and is said to greatly augment the danger. Pregnancy and lactation are said to hold the disease in abeyance during their existence. Phthisis is regarded as pre-eminently a hereditary disease, which I think is fully proven by its frequency in the offspring of parents of a scrofulous diathesis or taint. Inheritance and cold seem to be the chief predisposing causes, yet any state or condition which depresses or makes the state powers, must be

mentioned among them. As exciting causes we can regard those which are capable of irritating or inflaming the lungs such as the inhalation of acrid gases, irritating powders, any habitual or excessive exertion of the lungs, and external violence. Thus cold which is known to be a powerful cause of the diathesis, by its continued operation, is no less by its intermittent action a potent exciting cause of the local affection, age, sex, occupation, residence &c might be noticed also, but the present length of this thesis admonishes me only to advert to them among the first deviations from health discovered by auscultation is fallacious

of the respiratory murmur below the clavicle, caused by the deposit of tuberculous matter, and which generally increases the sound in other portions of the lungs, in consequence of its being obliged to assume more than its normal respiratory functions.

As the solidifications advances the respiration becomes more bronchial, and the expiratory sound is much longer than in health, while the expiratory is said to be interrupted, wavy or jerking, the existence of honcophony in this stage is also of great value. Percussion under and upon the clavicle reveals somedulness, and a comparison of the two-

sides should always be made, in order more certainly to determine its presence and extent. The action of the heart is not only more distinctly heard over the region of the diseased lung but the vibratory motion from the voice is often felt by the hand when applied to the sub-clavicular space.

After the vomica is formed pressions generally remains dull, and the characteristic sounds are those of cavernous rale, or gurgling, when the cavity is partly filled with liquid, cavernous resonance of the voice and cough and finally pectoriloquy. Very often the upper part of the chest becomes contracted or sunken

and a very marked diminution occurs in the movement of the ribs in respiration. When the cavities are large amphoric resonance and metallic tinkling may often be heard. Bronchitis and Pneumonia are the diseases to which it bears the closest resemblance in its general symptoms but the absence of the peculiar expectoration of Phthisis the unusual emaciation of the latter, its frequent pulse, night sounds, hemoptysis and dulness on percussion with the other physical signs will readily distinguish it from Bronchitis, while from Pneumonia it may be known by the symptoms which characterize that disease with but

little difficulty, should the two not co-exist in the same lung. The almost uniform occurrence of Pneumonia in the lower portion of the lungs, rusty spots &c will very soon define its true nature when uncomplicated with Phthisis.

The Prognosis in the majority of cases is very unfavorable but we have many assurances of recovery from it though said to say they are but few in comparison with the fatal issues. Various indeed are the remedies which from time to time have been used and extolled as exerting, not only a controlling but a curative influence over Pulmonary Phthisis. It is enough to say that their popularity has seem

survived that of their respective ad=
vocates. The paramount indications in
its treatment appear to be, to prevent
the further deposite of tubercle and
to guard the lungs and system as
far as possible against those morbid
influences. These ends are only to be
met by endeavouring to correct the
predisposition, and to protect from
all causes which are calculated to call
the predisposition into action.

As the tuberculous diathesis is
supposed to consist in a depraved
condition of the blood by which
the general tone and vigour of the
system is impaired, the paramount
indication seems to be to restore its

blood to a healthy condition. The means best suited to accomplish this end are exercise, both active and passive in the open air, yet never carried to the point of fatigue or exhaustion a nutritious but unstimulating diet. The proper regulation of the temperature of the body is highly important. The patient should carefully guard against the depressing influence of cold. Have flannel next to the skin, and sufficient exterior covering to keep him consistently warm should never be neglected. To insure the advantage of warmth, patients residing in cold latitudes, should spend their winter.

in a warm, dry and uniform climate.

Cod liver oil, alcohol in its various forms and Iron & Iodine in their different combinations and the common irritants, are the remedies from which most benefit has been derived. The cough, dyspnœa, hemoptysis, bronchial inflammation &c. are to be met according to their several indications.

1865

Placenta Praevia is an abnormal location of the placenta. The placenta instead of being attached to some part of the fundus Uteri, its natural location rests upon and is attached to the mouth of the uterus. It sometimes covers a part and at other times the whole of the Os Uteri. When the os is not entirely covered by the placental attachments it is called Partial Placenta Praevia.

These unfortunate occurrences will necessarily be attended with more or less hemorrhage in the advance stages of gestation. The quantity of blood lost will generally be in proportion to the extent of surface covered by the placental attachments. Formerly it was supposed that these accidents were occasioned by the detachment of the placenta from the fundus of the uterine [illegible] and its [illegible] fall to the mouth. But this idea is known to [illegible] the placental

attachments being the same whether the placenta be at the mouth or at the fundus of the uterus. When any portion of the placenta in Placenta Praevia is detached from the cervix uteri hemorrhage will be the result just the same as when detached from its normal location.

Fortunately for the Obstetrician Placenta Praevia always fraught with danger is of comparatively rare occurrence nevertheless it is sufficiently frequent to demand his care for

Study. It may occur at any time and he should be prepared to meet it.

When the ovum becomes so far developed as to require the cervix to become a part of the containing organ hemorrhage will always follow from detachment of portions of the placenta from the neck of the womb. As the dilatation of the cervix progresses the flow of blood will become more profuse and the patient if left to her own natural powers will in all

probability perish from the excessive drainage of blood from her system. Unless the body and fundus of the uterus should contract with sufficient force to dilate the os and expel the contents of the wom before fatal syncope could supervene. For this possible occurrence the accoucheur should not wait for in all probability the woman would be dead before dilatation of the os would be sufficient to allow the expulsion of the contents of the womb; or she be so much exhausted from

the loss of blood that reaction would never take place. Such being the fatal attendant upon this unfortunate case it becomes the duty of the Obstetrician as soon as the woman is taken in Labor and hemorrhage ensues to interfere and terminate it as promptly as possible without injury to mother or child. He may thereby prevent the loss of much blood and give the woman a much better chance for a favorable termination of a pestilence which is a

fraught with the greatest danger.

The symptoms of Placenta Praevia are copious discharges of blood from the genital organs in the advanced stage of pregnancy coming on usual about the end of the seventh month or between that and full term of gestation. The placenta being adherent to the walls of the cervix uteri portions of it will become detached by the expansion of the cervix uteri. Hemorrhage will then necessarily result from the opening of the uterine vessels

which may occur before placed by the placental attachment.

Bleeding may occur before the seventh month but it usually is a slight that little or no notice will be taken of it by the woman herself or her friends supposing it to be the result of some slight injury or accident.

But after the seventh month it will likely alarm the woman and when attended by the quantity and rapidity of the flow and the physician will be consulted in reference to the condition of upon

careful inquiry it is ascertained that the discharge of blood came on suddenly without any assignable cause the woman having undergone no violent exertion or been subject to any mental emotions, the flooding occurring while attending to her household duties or perhaps while resting on her bed and quickly subsiding, but returning again in a few days or a week; there are strong reasons for apprehending the existence of Placenta Praevia. Such treatment should be instituted as the urgency of the case demanded. If the flow of blood were so profuse as

to put the life of the patient in jeopardy it would be the duty of Physician to make an examination per vaginam to develop more clearly the diagnosis. Should she object to such examination she should be informed of the danger attending her situation if not properly treated, that the attendant may have the advantage of her cooperation with him in his efforts to thwart the perils consequent upon her condition. If upon making the examination a fleshy fibrous mass is found

covering the mouth of the
womb and attached to its
rim: it is sufficient to establish
the correctness of the diagnosis.
The membranous portion of the bag
the foetus could readily be mistaken
for the placenta. A coagulum
of blood might block up the
canal of the cervix but any
of these could readily be
distinguished from the
placenta by being free and
unattached to the walls of
the cervix uteri. And again
they could be distinguished
by their softness and size
neither of which they could be

crushed between the finger.
In all these manipulation the greatest possible care and gentleness should be used so as to avoid injury to mother and child

Hemorrhages occurring in these cases toward the end of full term are unavoidable and all that can be done is to lessen the flow and prevent its recurrence as far as possible by enjoining absolute rest in a horizontal position on a mattress or hard bed. If the patient has lost much blood it may be proper to

depress her head below the level of her body until she recover from the exhaustion produced by the hemorrhage. Her chamber should be kept cool and well ventilated. Her diet nutritious but not stimulating. All indigestible substances should be carefully avoided. Free use of lemonade with or without will be of much advantage as well as agreeable to the patient. The mineral acids are supposed to exercise a salutary influence in restraining hemorrhage and may be given with benefit.

The bowels should be kept soluble by the exhibition of mild aperients such Sulphate of Magnesia Castor Oil &c. If there be nervous irritability with restlessness and false pains an opiate should be given to allay nervous excitement relieve pain and promote sleep, being especially indicated if she has suffered from the loss of blood. All sources of mental and moral excitement should be kept from her.

With proper care and attention these hemorrhages though of frequent occurrence toward the close of gestation will not

prove serious in its consequences as a general rule.

The attendant or nurse of a woman should always be instructed fully in regard to her management during the absence of the Physician and required in case of a recurrence of the bleeding to make it known to him promptly, that he may institute the requisite means for checking it.

When the [illegible] period of gestation has been completed and labor commenced a very different course of treatment.

becomes necessary. The labor pains coming on the placenta will be rapidly detached as the os dilates, and profuse hemorrhage will supervene, which if not checked checked will soon prove fatal. What shall be done? Shall we wait hoping that nature's efforts alone will be sufficient to the task of expelling the contents of the uterus in safety to the patient? If we do she will probably sink, and die undelivered. Some say tampon the vagina. We may do so and check the

external flow of blood but internal hemorrhage will take its place which will prove as promptly fatal as the external bleeding. Others recommend the detachment of the entire placenta affirming that this will arrest the bleeding. But the mode is unphilosophical and not to be trusted. The best and only safe method in my estimation is "turn and deliver" as soon as the os is dilatable: Carry the left hand into the pelvis if the presentation be to the mother's left or if it be to her right

use the right hand. But if the presentation cannot be determined use the left hand as the vertex is much more likely to be to the left its most common position.

Pass the hand slowly and gently into the uterus by first introducing one finger then another and so on until the whole hand can pass in, separating the placenta from the os at a point where it is most feebly attached; rupture the membranes and grasp the leg of the child nearest the [illegible] pubis and bring

its hips down so as to engage in the os and plug the bleeding vessels. The right hand should rest during this operation on the womb to steady it and assist in evolution. If the bleeding cease and the expulsive power is strong further interference may be unnecessary for the present at least leaving nature to complete the labor. If however the vital powers of the mother begin to fail and the delivery has to be completed by art, it should be done gently and with the greatest care that neither mother or child

may be injured or the chin caused to depart and the arms stripped over the childs head thus embarrassing the delivery very greatly. Ergot should be given to promote firm uterine contractions as soon as delivery is completed. Care must be taken that it be given in the proper time or injury may result from its exhibition. During the whole of these operations the woman should lie on on her left side or back with her hips brought well to the edge of the bed. Her head should be on a

level with her body or below it if the hemorrhage has been severe.

The uterus being emptied of its contents and firm contractions induced the bleeding must cease; and if the patient has not lost too much blood she may be considered as past the point of danger. She should be kept as quiet as possible for three or four days and under no circumstance be allowed to rise from the horizontal position. The danger being a recurrence of the bleeding and syncope or a heart clot

be formed which would destroy life speedily. Alcoholic or other stimulants and nourishment must be given as indicated.

Partial Placenta Praevia will be attended with the same dangers as Placenta Praevia but in a less degree and must be treated in a similar manner; differing only as the [illegible] of the case may require. The great object in either case is to prevent the loss of blood as far as possible.

An Inaugural Dissertation On Sulphate of Quinine

Submitted to the Examination of the Provost Regents and Faculty of Physic of the University of Maryland School of Medicine for the degree of Doctor of Medicine by

James F. Thompson B.S. Of Maryland

Session of 1864-65

The faculty of the
University of Maryland
For the Session of 1864-1865

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Dean

Sulphate of Quinine

It has always been a time-honored custom in all institutions of medicine, where the degree of Doctor of Medicine, is confered upon the students attending such institutions: that they should present to their faculty a Thesis, upon some subject appertaining to the science of which they are students.

I therefore, a student of this proud old institution, the University of Maryland, at the same time a candidate for the degree of Doctor of Medicine, present this my feeble effort, hoping that it may meet the approbation of my much honored, and esteemed

faculty; and that all due allowance
may be made for the want of aught
pertaining to entire originality.
In looking over the vast number of
subjects innumerated in the Science
of Medicine from which to make
my selection, my eye as if by
intuition falls upon the subject
of the Sulphate of Quinine. And
for Why? Reared as I have been
in the Southern section of this
my native State; Where Malaria
raises with the mist of Eve stalks
abroad to infiltrate its poison into
the system of its unsuspecting vic-
tims who fall languid and pros-
trated as it were in its very wake
I too oft have had to grapple

with the monster and become its victim; and just so often have I been compelled to call to my aid the great antidote of which I am about to speak.

The introduction of this most valuable remedial agent into the science of medicine forms one of the most important epochs in the history of that science, Bearing along with it the blessings of millions of suffering humanity in the past; it will be caught up and blessed by millions yet to come

Far up above the level of the ocean upon the rocky sides of the Andes in several of the western

Republics of South America grows a medicated tree of the forest known by name Cinchona. In honor of the Countess Cinchon, who suffering with fever is said to be the first to test the febrifuge properties of that peculiar tree which now forms an important article of Commerce. The bark is stripped by the Cascarillos from the branches to the roots and after being dried properly is assorted and packed in what are called <u>Cerroons</u> and are then sent to almost every part of the Civilized world. And it is from this bark that we obtain Quinine which goes to

make up the subject of this Thesis.
Since we have thus reverted to Cinchona, let us now look further into its history before entering upon a detailed description of Quinine one of its preparations, The discoverer of the remedial agency of Cinchona though it has been accorded to the Countess Cinchon is I believe not precisely known. Numerous fabulous stories have been told about its discovery. Thus one for instance of an Indian, becoming thirsty from a long chase and suffering at the same time with ague and fever threw himself down to drink from a pool at the foot of the Cinchon

tree; having refreshed himself with a large draught of the bitter water, was restored to health. Be it as it may the natives did not take advantage of this most important discovery. For as the Spaniards say: They have an utter aversion to the use of the bark, although they are nearly all deeply effected with the Malarial Cachexia.
Endowed with enough astuteness gained through experience, they have found out that as a remedy it contained no prophylactic powers against the return of intermittent attacks; And likewise probably on account of the great bitterness

of the doze when taken; therefore no wonder that the Untutored Savage should ignore its use,

Thus be it as it may; it seems that the virtues of the bark was not known to the Civilized world until after the Conquest of Peru by the Spaniards. And thus fortunately through the instrumentality of some Jesuits, then Missionaries to the above named Country, who having some knowledge of Medicine that this drug was made known to mankind, so soon, as it was, and it was from them that it once had the name of "Jesuits Bark". It is evident I believe that we are indebted to them for our first

knowledge of its Curative properties, in the treatment of Intermittent fever Though its rise and progress was at first slow, yet it has been sure, When we take into Consideration and not a little singular too that the most violent and absurd prejudices existed against the use of this drug for a long time after it was first introduced into the practice of Medicine: which presents to us, a sad Commentary upon the blindness and perverseness of human nature, Religious superstition and Scholastic prejudices of those days seem to Conspire to pull down with one fell stroke of Condemnation this one of the most valuable

discoveries in the science of Medicine, and I am sorry to say that Protestant bigotry essayed to give it a death stab, by endeavoring to establish the fact, that the bark did not contain a single salulary virtue May not jealousy be taken into Consideration? For the reason that such a discovery was made in the presentation of such a valuable gift to mankind through the Jesuits?. Other reasons for its slow introduction into use may be summed up thus. Its high price, which was far beyond the reach of the poor, who go to make up the mass of the population. Of Course we are debared from its use.

and unassisted by the lights of those days such as the renown Sydenham, who refused to speak of it with enthusiasm, and who only believed that it would not injure any one, Yet in time without losing sight of those Jesuit Missionaries whose influence is connected with that of a great religious society and unconnected with the practice of medecine, surmounting all obsticles in the face of the greatest opposition, we see them assisted by the labors of Jacquot, Monneret, Rilliet, Briquet and others, in bringing to the light of the Civilized world this one most important agent. Thereby erecting to

themselves a monument of their singular industry, and well directed Zeal.—

Sulphate of Quinine, one of the preparations of Cinchona bark of which I have just spoken, is obtained principally from the Yellow or Calisaya bark, which is obtained exclusively from Bolivia, And is prepared in the following manner according to Dr Wood, Take the officinal yellow or Calisaya bark and exhaust by boiling it with water acidulated with sulphuric acid, that from the decoction thus obtained the quinia and other alkaloids are precipitated,

together with impurities by means of lime; the precipitate is then treated with alcohol, which dis-solves the alkaloids; the alcoholic solution is then evaporated; and finally from the residue consisting mainly of quinia the sulphate is obtained, by treating it with boiling water, and sulphuric acid, purifying with animal charcoal and crystallizing. It then presents the appearance of white silky flexible and needle shaped crystals in tufts or interlaced; in odor scarcely intensely bitter. It is very readily dissolved by water acidulated with almost any one of the

Sour acids it is also soluble to a considerable extent in glycerine and is fusible at 240° F.

The effects on the system are very nearly analagous if not identical with those of the simple bitters

When Sulphate of quinine is administered to a healthy person in quantities not exceeding six grains daily in a dose of half grain; at first there are no sensible effects whatever to be felt; but after a short time the appetite is increased. The food appears to be more rapidly digested, the pulse becomes somewhat fuller, and stronger, and in some degree accelerated, the temperature of the surface is

correspondingly elevated, the pro
cess of sanguification and nutrition
are promoted, and either directly
or indirectly the other vital func-
tions are moderately stimulated.
Or otherwise in every sense of the
word the operation of the med-
icine may be said to be nothing
more or less than a pure tonic.
Given in large doses Sulphate of
quinine evinces a tendency to act
specially upon the brain and
often produces decided effects
upon that organ. Let the dose
be twelve grains daily in divided
doses. This quantity however
varies greatly in different in-
dividuals in the production of

Cerebrac Symptoms. Some persons will evince an extraordinary susceptibility to the influence of even small doses, while others will scarcely feel a larger quantity then the above mentioned. The first cerebral sensations that are usually produced, are abnormal sounds, such as buzzing, roaring, like that of a strong wind, or of a Cataract singing, hissing, ringing, and many other like sounds. The hearing is more or less effected. There are frequently experienced in the head a sense of weight, fulness, tension and sometimes positive pain, though not often severe

Suppose we increase the dose still more, and give say from twenty to sixty gr. daily, what is the effect then produced?
The Cerebral functions are increased and a decided sedative influence upon the Circulation is manifested, as the frequency and force of the pulse is diminished, in proportion to the amount of the salt used, Accompaning the abnormal sounds already refered to, there is now a giddiness or dizziness; the individual in an attempt to walk often staggers; the hardness of hearing increases to positive deafness, and in some instances Blindness may be induced.

The action of Sulphate of quinine upon the Circulatory System is I think very Conclusive, according to the experiments of Briquet on the lower animals When this drug is injected into the veins in sufficient quantity it at once suspends the action of the of the heart, Causing death by syncope, and distruction of the hearts Contractility, or otherwise the action of the heart becomes very slow and feble, which lasts for several days In small doses it stimulates the Circulation, in larger it acts as a sedative, or depresses the Circulation. That Sulphate of Quinine is taken up by absorption Can no longer be doubted, Since Several experimenters

have detected quinine in the blood, and it may easily be detected in the urine, a short time after its administration by a simple chemical test. Take a solution of iodide of potassium, in which free iodine has been dissolved it throws down an orange-brown precipitate from the solution of salt of quinia In ordinary urine no such effect is produced

Having this far spoken of the action of Sulphate of quinine upon several of the most important organs in the human system let us now take into consideration its Remedial employment or Therapeutic Application

We will first speak of it as to whether it is a Prophylactic against Malarious Diseases.

Here is a question which has for a long time been considered "Sub lite" but I believe it is now quite elucidated; for certainly in the history of this medicine no such powers were accorded to it. But of late years it has been clearly shown that it does Contain Prophylactic properties. It is believed not only to Cure periodical fevers but is also able to prevent their development in the system. For as we are informed by Dr Bryson there is a standing rule in the British navy when sea

men are sent ashore in tropical malarious regions a dose of the bark in wine was administered to each man as a prophylactic. But of late years a different system of administration has been taken up. Amorphous quinia. is dissolved in wine and substituted for the bark, which makes it more palitable and this has not only been given on the day of exposure, but for fourteen days after, the exposure has ceased. Dr Bryson has proved by various testimony, that on the Western Coasts of Africa which is very pestilential: the crews of vessels can be with few

exceptions kept nearly ~~nearly~~
free from malarial fevers
chiefly by the means above men
tioned This calls to mind and old
custom that once prevailed
amongst a few of the slave
holders of Southern Maryland
It was their custom to give
their field hands quinine
mixed with whiskey before
going out in the morning
dew with a view as they said
to keep off chills and fevers
showing that they at least
had some knowledge of the
Prophylactic agency of Quinine
To speak of the Sulphate of
quinine in its application to the

different diseases for which it is called for would occupy more time and space then I have allotted to this subject, I will therefore speak of it in the treatment of a few of the most important periodic diseases, such as intermittents, and remittents For as such, it stands far ahead of all other known remedies, And when all things are taken into consideration, it is hardly conceivable, what the sufferings of humanity must have been before the introduction of this medicine into common use, since it has been said that an intermittent attack was

at one time was as much dreaded as pulminary Consumption But now thanks to the progress of science an intermittent has been robbed of its terrors and made to yield submissivly to the potency of the Sulphate of quinine. In the administration of the Medicine the question arises as to what time it should be administered; what are its Contraindications and the quantity to be given on the dose?

We will speak first as regards the time for administration. This is indeed a mooted point among many therapeutists Some Contend that it should

be given indiscriminately at all periods of the disease without reference to pyrexia, or apyrexia, this is certainly not the practice of the majority, except in the case of pernicious fever when it is of the utmost importance that the paroxysm should be warded off: and there is one caution says Dr Wood which should always be observed in the administration of quinine during the pernicious paroxysm, and that is this. Never give it so largely in the cold stage as to induce its secondary sedative effects and thus add to the prostration which is often of itself very alarming

and not unfrequently fatal
The same author goes on to say
that from personal observation
he thinks that the best plan
is to Commence immediately after
the cessation of the paroxysm.
and to Continue with repeated
doses until within about an hour
of its expected recurrence and
in the meantime let the system
be well under the influence of the
medicine. which is accomplished
by its administration in small
doses repeated at the intervals of
an hour or two, until a full quan-
-tity has been used. If we should
use large doses we would run
the risk of irritating the Stomach

or overexciting the brain. By small doses the absorption is probably more complete. Consequently the amount required to produce the desired effect may be diminished. But circumstances seem to alter cases and even demand a departure from the general rule. Thus for instance when the intermission is very short or when it occurs at night so that the frequent administration would interrupt sleep which might prove injurious to the patient; in such exceptional cases you might give the whole quantity in one or two doses always taking care to throw

the medicine mainly into the earlier part of the apyrexia in order to allow time for its absorp=tion and full operation

As to the Contraindications says Dr Wood they may be summed up in the following. There are but two instances in which we would make an exception and those are when the cerebral centres which are especially susceptable to the stimulent influence of quinine; and the mucous membrane of the stomach which is liable to be irritated by it and become the seat of inflamation though he says this might be obviated by administering the medicine

through the rectum; and if there should exist active cerebral congestion in intermittent fever which contraindicates the use of quinine the above named symptoms should by all means if possible be removed before the administration of the medicine. We come now to speak of the last proposition in the question What is the quantity to be given or the dose? There are indeed various opinions upon this one point so that it is difficult to arrive at any settled conclusion since circumstances have somewhat the control We must therefore be guided by our better judgment and treat

accordingly Thus in an intermission some prefer administering from twelve to sixteen grains in one, two or three doses with one two or three hours interval as the case may be Best as it may, as an anti periodic from twelve to twenty four grains may be given in the interval and that in ordinary cases But the dose may be greatly increased in pernicious fever, or very obstinate neuralgia, to from thirty to sixty grains, at equal intervals in divi-ded doses of from three to five grains until the disease has abated

The intense bitterness of quinine has led to many inventions for the various methods of its administration

though I think with only partial success Our much esteemed Prof Dr McSherry recommended in speaking of this subject to his pri=vate Class a combination of tannic acid with gumine which he says covers the bitter taste almost effec tually and serves as an excellent purpose in the administration to children and thinks it is better than any thing he has ever tried although there is a precipitate of tannate of gumine which is insoluble never=theless M. Bouvile insists that the antiperiodic virtues of the tannate of gumine are equal to those of the sulphate and at the same time it is less irritating to the stomach and

has less effect upon nervous System
Of the incompatibles we might
as well speak of them here, Being
substances which yield precipitates
with solutions of the Sulphate of quinine
and should not therefore as a general
rule be administered along with it
These substances are the alkalies
and their Carbonates the alkaline
earths. all astringent solutions
Containing tannic acid; also the
soluble salts of lead and baryta
and the soluble acetates. Salts
of oxalic tartaric and gallic
acids These precipitates how-
-ever may again be redissolved by
the addition of an acid
We have thus far spoken of

the history of Quinine its use and progress in science of Medicine: of its action upon the system; of its Therapeutical application; of it as a prophylactic agent; and of it in the treatment of Intermittent and remittent fevers showing in them its potency as a curative agent and finally of its properties as a tonic in a debilitated state of the system &c

There are indeed many other diseases in which quinine seems to be indicated on account of having assumed a regular periodical character. Among them in Conclusion I will mention one in particular which has frequently

come under my own observation and
that is neuralgia This disease is essen-
-tially spasmodic, intermittent
and sometimes quite independent
of a miasmatic cause
Neuralgia in all of the nerves has been
very decidedly benefited by the
remedy in question; especially
neuralgia of the fifth pair in
which the dental branches are in-
-volved. Having been frequently
called on in the practice of my
profession by patients suffering
with severe miasmatic neuralgia
in the dental branches to have a tooth
extracted, which after a most
thorough examination of the supposed
effected organ and not being able to

detect any signs of Caries I have always invariable prescribed from ten to twenty grains of quinine to be administered six or eight hours before the paroxysm in divided doses Combined with a little opium to increase its efficacy; and I Can truely testify with the most happy results- Thus in a retrospective view Intermittent fever once the scourge of the miasmatic district; with many other diseases somewhat analogous, together with neuralgia with its sharp and lancinating pains All have been made to bow to that potent agent the sulphate of quinine, brought as it has been to its present perfection through the instrumentality of a science of which I am proud to call myself a Student-

Diarrhoea.

By diarrhoea is meant a disease characterised in the more frequent discharge of the contents of the Bowels. The matter discharged is generally of less consistency than the discharges of health. The various appearances of the evacuations in diarrhoea have induced it convenient to divide it into several distinct forms. Of these I can mention but four; as a complete classification of the various forms of this disease would be a task requiring more labour than I can bestow, and [illegible] experience than I [illegible]

among the varieties generally mentioned in the books are the following - Feculent diarrhoea; Bilious diarrhoea; Mucous diarrhoea; Chylous diarrhoea, Serious diarrhoea. Lienteric diarrhoea. Feculent diarrhoea.

This form of diarrhoea is less serious than any other. It is frequently the consequence of an overloaded stomach and occurs in persons whose appetite are larger than their stock of prudence. It is sometimes accompanied by nausea and even vomitings. Bilious diarrhoea.

This form of disease is characterised by large loose,

yellow evacuations. The fæces are loaded with an unusual amount of bile. It is dependent upon some condition of the liver by which the secretion of that organ is largely augmented. It is thought by some persons that this condition of the liver is of term secondary sympathetic; the original disease they say being in the duodenum. The heat of sun during our hot summer has no doubt much to do with the promotion of this disease, moral emotion such as joy, anger, fear &c. have been known to give sudden birth

to bilious diarrhoea. This species of diarrhoea is almost as mild as the preceding, and is only more formidable when the inordinate secretion of bile continues for a long time I have said that the color of the evacuation was yellow. This is not universally the case they are sometimes green, and sometimes almost black. Mucous Diarrhoea. The stools in this species contains but little if any faecal matter but consist principally of mucous, mucous is sometimes passed in large masses presenting a variety of appearance.

Fever is a rare companion.
The disease is caused probably
oftener by exposure to cold than
by any other one circumstances.
It is usually easily managed.
Chylous Diarrhoea. This variety
is characterized by milky evac-
uations, some authors thinks
this milky appearance of the
discharges depends upon the
presence of chyle; others be-
lieve it depends upon the
presence of bile. Others (and
with these I agree) be-
lieves it depends upon neither
the one cause nor the other
but upon the absence of bile.

This variety is exactly opposite to bilious diarrhoea; for whereas in the former disease there is a deficiency or absence of bile, in the latter there a superabundance. From this absence of bile we may justly infer that there is some hepatic derangement. The organ has either ceased to secrete a proper amount of bile or there exist some impediment to its entrance into the duodenum, with proper treatment the form is not difficult to manage.

Serious Diarrhoea.

This form of the disease is characterized by large watery discharges. They are sometimes, in fact frequently found to contain some mucous. enormous quantities of fluid are sometimes passed in a very short time and the debility arising from it is very great. The color of the evacuations is not constant. They may be of almost any color, or without color. It is somewhat closely allied to the mucous variety and is classed with them by Dr. Cullen; at any rate the con-

ses which tend to induce mucous diarrhoea induce also this form of the disease Lienteric Diarrhoea. This form of the disease in the opinion of Dr. Crampton, is not entitled to a distinct consideration — others however thinly differently. The characteristic elements of the disease is the rapidity with which the food slightly changed passes through the alimentary canal: it is very seldom abrupt in its onset but frequently follows and is a consequence of a chronic form of some other variety

of the disease. It probably arises from excessive irritability of the stomach in which organ, it is admitted the disease has its . This is a serious and not unfrequently a fatal form of the disease, and unless the treatment be commenced not early it will be found difficult to manage. Chronic Diarrhoea. By neglect on the part of the patient or Physician, and sometimes in spite of their united efforts the disease may assume a chronic form. Where I say, disease, I include all the varieties of diarrhoea.

Chronic diarrhoea is much more dangerous and difficult of management than the acute form, and it is upon this kind that the man of medicine is most frequently called to test his skill and patience. He (the practitioner) finds in the treatment of chronic diarrhoea obstacles and serious ones which do not arise in the management of the recent form. The disease being more permanent fixed must of necessity be more difficult of removal. But this is not all; the inconvenience to the

patient, arising from restriction of diet in recent diarrhoea, in consequence of its brevity is much less than that arising from the long continued abstainnance required in the chronic variety. In fact in many cases the appetite is so voracious and calls so clamorously for food that unless the patient passes more than an ordinary share of moral integrity and firmness he is unable to resist its demand. This is unfortunate, for upon no one circumstance does the prospect of speedy recovery:

So much depends as upon strict abstinence from all irritating and stimulating food unfortunately that which is most stimulating is to the majority of persons most palatable. As a consequence partially by this imprudency in diet an particular of some other circumstance the evacuations are often found to contain a considerable quantity of undigested food. Causes.

The causes of diarrhoea are more numerous than its varieties. They may be divided into two kinds those which

by direct application act upon the mucous membrane of the bowels, and those which act through the system at large. All substances received into or generated in the stomach or bowels of an irritating or acid character belongs to the former kind. Of these may be mentioned raw vegetable such as cucumbers, melons, turnips, mushrooms &c. Fresh fruit particularly if they be acid are apt to induce the disease. To this kind of causes belongs also indigestable articles of food; vitiated secretion from the liver; worms &c. Putrid meats

Change of water and new cider not unfrequently give origin to diarrhoea, of the other class of causes among the most frequent and effective is the application of cold to some portion of the body or to the whole surface exposure to cold damp atmosphere and the inhalation of putrid exhalation. A sudden check to the prespiration suppression of the menses the healing of old ulcers the retrocession of the eruptions of Small-Pox measels or Scarlet-fever are sometimes the occasion of diarrhoea sudden Emotion of the mind

are frequent causes of the disease, I have mentioned cold and moisture. As causes, heat also acts very frequently in this way Dr. Eberlie speaks as follows in regard to the agency of Atmospherical heat, cold and moisture. Diarrhoea appears also sometimes to arise from an epidemic condition of the atmosphere independent of its Thermometrical and Hygrometrical states. This variety of the disease usually occurs in autumn when the nights begin to cool after a very dry and hot

Summer and especially during the prevalence of other intestinal diseases. He thinks that cases of this kind partake somewhat of the nature of miasmatic fevers. Diarrhoea occurs sympathetically in many cases as in measles & scarlatina; in enteric fevers; in dentition of children in hectic fevers &c. Pathology. Diarrhoea has been looked upon by some authors as always symptomatics and never deserving of special consideration. It is highly probable that the addoption of this view would not only be without ben-

exit but would be absolutely injurious. The excessive peristaltic action of the bowels may arise in two ways. The irritability of the bowels may be natural and they may receive into them substances of a highly irritable character or the bowels may be exceedingly irritable and they may receive into them articles very mild in themselves. In either case the peristaltic action is increased and diarrhoea is introduced. It may be accepted as a rule that diarrhoea has its seat in the mucous membrane of the bowels.

and that irritation of the membrane produce an increased peristaltic motion. It is necessary that we pay particular attention to this condition if the mucous membrane, when the irritation continues and the diarrhoea becomes chronic the irritation passes into inflammation. The appearance of the mucous membrane on dissection, is various, when death occurs at an early period of the disease the mucous membrane of the bowels, is found to be red and congested sometimes however it is pale and anaemic;

If the disease has been severe and at the same time chronic, fungoid patches are sometimes found. Ulcers may also exist, and perforation of the bowels is sometimes. The membrane is sometimes much thickened and indurated. The diarrhoea accompanying phthisis depends upon ulceration of the mucous membrane. Diet. Nothing in the treatment of diarrhoea is more important than the administration of proper diet. In every variety of diarrhoea the patient should be confined to simplest and least

irritating food, no animal nor in fact any solid food should be allowed. In most varieties carefully strained animal broth if not to rich may be allowed. The diet should consist principally of sago, rice, or arrow root. The drinks of barley water, rice water, gum arabic or emulsion of slipery elm bark. The prognosis of diarrhoea when unattended by viceral disease is far the most part favourable but when the membrane becomes much inflamed the danger is considerable ulceration and even perforation may then occur.

Bilious diarrhoea like fe-
ulent often brings about
its own cure when it fails
to do so, the indication is to
cleanse the bowels and stomach
by means of small doses of cal-
omel. If there be no fever
a little laudanum may be given
at night to secure tranquility
of the bowels. In the treatment
of mucous and serious diarrhoea
we may at first employ cathar-
tics but when the evacuation
no longer give evidence of
faecal matter, cathartic must
be stopped and in their place
must be substituted.

Diaphoretics, diluents, refrigerant, opiates, the warm bath, and the local detraction of blood. Phylous and Lienteric diarrhoea may be treated very much in the same way. The treatment consists in the witholding of almost every kind of food a little gum arabic water or slippery elm bark, emulsion is all that should be allowed. The bowels may be restrained by astringent injection small doses of Calomel may be of advantage. Chronic Diarrhoea. Treatment. The treatment of chronic diarrhoea is often

difficult and unsatisfactory. The principal indication are if the evacuation are unnatural and loaded with vitiated matter as they frequently are to bring about a change in their character. This may be done by the administration of alterative and purgatives. If the diarrhoea of long standing and there are evident of much inflammation local bleeding may be resorted to opiates, and the warm bath may also be called into requisition. Astringents are indicated when the diarrhoea

is kept up not by organic inflammation but by simple loss of tone or irritability. There are many cases of chronic diarrhoea which depends entirely upon the improper quality of food taken by the patient.